DISCIPLINE-BASED ART EDUCATION AS THE STRUCTURAL SUPPORT
OF A LANGUAGE-ARTS INTERVENTION PROGRAM:
DOCUMENTATION OF COGNITIVE CHANGES IN
CERTAIN ELEMENTARY-AGE STUDENTS

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Pamela K. Geiger Stephens, BFA, MA

Denton, Texas

December, 1996
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This study follows the progress of 11 elementary students who exhibited similar language-arts deficiencies and were treated with traditional and non-traditional language-arts remediation methods. Non-traditional methods were exclusively Discipline-Based Art Education (DBAE) lessons that required students to observe, talk about, and write about art images using a DBAE framework. Portfolios maintained by the students during one complete school year included writings and art production. Writings were marked using a color-coding system developed for the research project and designed to track growth in art cognition. Interviews for affective measure and the Test of Non-Verbal Intelligence, Edition II were administered as pre- and post-tests. Evidence indicated art understanding improved as cognition in language arts improved. Change in attitudes toward art and artists demonstrated a slight positive change. No significant difference was detected in non-verbal intelligence.
ACKNOWLEDGMENTS

The author gratefully acknowledges the Hurst-Euless-Bedford Independent School District and Bedford Heights Elementary School for their cooperation and support during this study. Additionally, acknowledgment is extended to Mrs. Susan Dilleshaw Green, MS, C.C.C. - S.L.P., for her assistance in providing an educational environment conducive to collection of data for this research.
A paradox presented itself to me in two recent, but separate, pilot studies. Both of these preliminary studies were designed to explore art understandings found within the written expressions of sample groups of adults and children. The adult learners were classroom teachers and art specialists enrolled in an intensive two-week comprehensive art education program. The younger learners were from a variety of public elementary, middle, and high schools who participated in a privately funded program that provided for multiple art museum visits. The latter program also provided training for the teachers of these students. This training consisted of day-long inservice programs at an art museum. Sessions and educational materials were developed by master teachers from the School of Visual Arts at the University of North Texas, Denton, and museum educators from the Amon Carter Museum in Fort Worth, Texas. Materials provided to the participating teachers included teacher guidebooks, slides, posters, and postcards of selected art images from the museum's masterworks. Master teachers used actual works of art in the museum's galleries to present historical information, provide interactive art critical discussion and writing activities, model aesthetics contemplation, and suggest studio production extensions. In turn, participating teachers agreed to use the techniques they were taught and the materials they were given to introduce their students to particular works of art prior to bringing these children to the museum for guided tours.

After treatment with comprehensive art education strategies, both groups generally demonstrated an improved ability to approach works of art and to write about the images with rational and effusive art statements. In a somewhat puzzling finding, however, neither group had a substantive understanding of why the statements were made.
Instructors for both the adult and child learners stated that they adequately presented the required art information and, moreover, the adult learners stated that they understood what was taught. This notion was substantiated by the ability of most of the adult learners to identify definitions of the components of a comprehensive art approach (i.e., art criticism, art history, art production, and aesthetics). Additionally, written expressions by both groups about specific works of art suggested cognitive growth in both observational and expressive skills in relation to art objects. Contradictory to the thoughts of the adults about their own cognition, however, few of these learners were able to corroborate their postulated understanding by demonstrating a written or oral synthesis of the information presumed to have been taught and learned. Specifically, when confronted with words, phrases, or sentences derived from their own and from their peers' written expressions about works of art, few could distinguish differences among the four disciplines of art. Most confounding to these groups were the distinctions between art critical judgment-making and aesthetic response. It was the aim of this study to document cognitive growth in visual arts when art information was taught through a discipline-based approach that was essentially integrated with a language-arts intervention program. As the study continued throughout one school year, the system was allowed the flexibility to adapt to the educational requirements of the population it served.

The reader will find the chapters of this dissertation arranged in the order that was followed when designing and implementing this method of tracking cognitive growth in visual arts.

- Chapter I substantiates the development and implementation of the cognitive tracking system.
• Chapter II focuses upon specific topics relevant to the study although related literature winds throughout this document and provides background information for the overall thesis of the study.

• Chapter III specifies methodology and includes detailed information about the pilot studies as well as the actual research project.

• Chapter IV opens with introductory remarks that explain a change in teaching strategy that ultimately led to a successful conclusion of the research project. After the introductory remarks, results are reported in chronological sequence and infer the reciprocity between two diverse and usually isolated curricular topics. A variety of unanticipated changes are documented within this chapter.

• Chapter V states conclusions and offers recommendations aggregated from the research project, contemporary educational reform, and current pedagogical practice.
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"What is worth teaching is worth assessing" (Armstrong, 1994, p. 9).

In response to contemporary inclusionary educational practice, this doctoral research undertook to document the progress of a group of divergent learners when an essentially visual arts-based language-arts intervention program was utilized as remediation coursework for a group of language-arts deficient elementary students. Prior to undertaking the documentation, certain key concepts were considered that would define and clarify the study's goals and objectives. These concepts (outlined in this introduction and further elucidated within the body of the text) are:

- Diversity of student populations and specialty education programs in five North Texas independent school districts,
- A baseline definition of comprehensive art education,
- Investigation of a method for compilation of student-generated written and oral expressions about works of art, and
- Delineation of how these concepts could gel into one viable system of cognitive growth documentation.

Diversity of Student Populations

Tenets of educational practice customarily mirror the social, political, economic, and intellectual aspects of the communities of which they are a part. From classical Greece to the present-day United States, the rudiments and fabric of societies determine the
customary face of pedagogical procedure, curricular content, and learning outcomes. In contrast to ancient civilizations that provided instruction for an elite few, education in our postmodern era demands all-inclusive approaches to teaching and assessment that encompass needs of an ever-changing, widely diverse student population.

Diversity of student populations, in the broadest of definitions, generally refers to differences that occur between students as a result of social or cognitive variance. Social diversity includes those idiosyncrasies most often created by differences in ethnic or cultural heritage, age, gender, religion, economic considerations, and emotional or physical abilities. Cognitive diversity relates to variances between intelligences of student populations. Identifying these social and cognitive variances and appropriately addressing the needs of these heterogeneous learners through alternate educational channels has become a goal of many public schools nationwide.

The demographics and elementary curriculum of five selected North Texas independent school districts are reflective of diverse student populations and divergent teaching approaches found in many United States public schools. Review of these five districts reveals disparate socioeconomic structures of student groups and a variety of specialty education programs within state-mandated general elementary curriculum. The socioeconomic stratum of each district is plainly circumscribed and easily disseminated from public files. Delineation of specialty education programs, however, is somewhat more complex to unravel; due in part to the wide assortment of titles and acronyms applied to these programs by various districts and the individual district's interpretations of how these programs should be implemented. For example, what is labeled PEAK in one

1 The five North Texas independent school districts (ISD) reviewed were: Denton ISD (a small, suburban district), Hurst-Euless-Bedford ISD and Plano ISD (both mid-size, suburban districts), and Fort Worth ISD and Dallas ISD (both large, urban districts). Fort Worth ISD reported the most balanced socioeconomic student population, while Plano ISD reported the least balanced. Types of specialty education programs had little variance between districts, regardless of size or socioeconomic factors.
district becomes GT in another, but both acronyms refer to similar educational programs designed for enrichment of students whose academic achievements meet or exceed expectations. In another circumstance, one district translates that elementary art courses should be taught by art specialists who teach every child within the assigned school while another district requires art specialists to be classroom certified, to teach one academic subject in addition to visual arts, and to teach art only to specified grade levels.

Regardless of the differences in nomenclature and interpretation of implementation, in apparent response to eclectic educational requirements, these districts each display expansive learning objectives. These objectives direct not only who should be taught, but what should be taught and when. Remaining elusive to the overall paradigm is how students with incongruent educational needs should be tracked for understanding of certain prescribed information (especially in the arts).

**A Baseline Definition of Discipline-Based Art Education**

Comprehensive art education, much as the designation implies, blankets the art curriculum with a range of interdisciplinary connections. Frequently labeled as discipline-based art education (DBAE), comprehensive art education essentially provides links among the four fundamental components of art (i.e., disciplines) and other content areas of the curriculum. The art disciplines are aesthetics, art criticism, art history, and production. When these art disciplines are judiciously utilized in classroom settings they are most appropriately modeled upon the methodologies employed by experts from the individual fields of art (i.e., aestheticians, art critics, art historians, and artists) and centralize upon finding meaning in art objects.

Dobbs (1992, p. 9) defined DBAE as:

...an approach to instruction and learning in art that derives content
from four foundational disciplines that contribute to the creation, understanding, and appreciation of art. These disciplines of art provide knowledge, skills, and understandings that enable students to have a broad and rich experience with works of art in four ways:

- By making art (production);
- By responding to and making judgments about the properties and qualities that exist in visual forms (art criticism);
- By acquiring knowledge about contributions artists and art make to culture and society (art history); and
- By understanding how people justify judgments about art objects (aesthetics.)

This definition remains generally intact, although it should be noted that more distinct terminology has been rendered for both criticism and aesthetics. A better characterization of criticism includes making interpretations of works of art while aesthetics explores ways people justify opinions about the value and beauty of art objects.

Finding meaning in works of art supplies questions and answers that go beyond the visual arts to include exploration of the many facets of time, place, and culture. When engaged as an integral portion, rather than as an unessential prompt, visual art has the capacity to affect learning outcomes throughout the curriculum. The diffuse educational expanse brought about by DBAE strategies, however, leads to problems of assessment and documentation of cognitive growth.

Performance Assessment: A Logical Method for the Arts

How does an educator go about tracking and documenting cognitive growth in the arts? Taking cues from other educational arenas, performance assessment derived through portfolio compilations seems to provide the best method for extended tracking.

Concurrent with expansive educational vision is the obligation for assessment procedures to deviate from traditional testing designs. According to Bracey (1992), the National Council on Education Standards and Testing agrees with this opinion and further suggests that "...assessment be performance-based rather than multiple choice, that it
allow for differences between wealthy and poor school districts, that it be fair to all students, and that it not necessarily be a single test for the whole country." The trickle down effect from this national pronouncement infers that smaller scale assessments (i.e., individual student assessments) correspondingly could benefit from performance criteria that allow students to verify proficiency of skills rather than exemplify an expertise in test-taking methods.

Rudner and Boston (1994) advise that the most effective measure of student understanding enjoins students to formulate an answer or generate a product that demonstrates ingrained knowledge instead of requiring singular solutions to structured problems generated by teachers. Falling under the umbrella term of "performance assessment," this appraisal of achievement dictates that a student not only furnish a response, but what is more important, that the student affirm how the result was derived.

Wiggins (1990, p. 42) agrees and proposes that "...assessment be built out of...exemplary intellectual challenges" that measure competencies of individuals and groups. Such is the nature of performance assessment: to provide evaluation of student work in such a way as to confirm student cognitive growth through a record of work in progress as well as assessment of completed products. Typically, this classification of performance assessment is labeled "portfolio."

Properly described as "...a purposeful collection of student work that exhibits to the student (and/or others) the student's efforts, progress, or achievement in given areas," general education portfolios should:

- Contain an ongoing, interactive exchange between the principle stakeholders inclusive of goal-setting or preparatory work,

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2 Armstrong (1994, p. 15) identifies the primary players in art assessment as "students and teachers who produce and collect evidence of learning." Secondary stakeholders, such as parents and administrators, also may share in monitoring of educational performance.
• Reflect the student's responsible behaviors (in the form of compiled work),
• Furnish an opportunity for learner self-evaluation for the duration of the collection, and
• Be a method for monitoring growth over time (Krechevsky, 1991, p. 44).

In visual arts, documentation of content mastery can be demonstrated through written communication and art production. Therefore, in addition to the previously cited portfolio guidelines, visual arts portfolios should chronicle student progress in the constituent art disciplines of:
• Critical inquiry,
• Aesthetic reasoning,
• Historical research, and
• Studio production.

These supplementary additions to a visual arts portfolio directly mirror the foundational components of DBAE. Addressing each area through the methodology of practitioners of the individual field provides students with four distinct modes for entering and exploring works of art. Much the same as learning the scientific method through the procedures of a scientist, learning about art production through the methodology of an artist assists with deeper understanding of visual arts. Measuring this learning, however, poses an assessment dilemma.

Problematic to performance assessment in the arts, and portfolio assessment in particular, is assessment of the learning outcome. Characteristically, assessment procedures for performances demand time-consuming tasks that many educators are unable to carry out (Wilson, 1970 and Johnson, 1994). Taking cues from the educational needs of students and teachers, the explicit intent of this quasi-experimental study is to
develop and demonstrate implementation of a system for documenting cognitive growth in visual arts that simultaneously:

- Meets the instructional requirements of quality comprehensive visual arts educational experiences (i.e., interdisciplinary connections) and
- Supplies a useful, yet manageable, method of tracking cognitive growth in art understandings as expressed through written and oral communication.

According to Armstrong (1994, p. 15), "...persons who share ownership in the assessment process share commitment to its purposes." Additionally, Johnson (1994, p. 2) stated the following:

Research shows that students at all levels see assessment as something that is done to them by someone else. Beyond assigned letter grades and teacher comments, many students have little knowledge about what is involved in evaluating their class work. Portfolios can provide structure for involving students in developing and understanding criteria for good efforts, in coming to see criteria as their own, and in applying the criteria to their own and other students' work.

Students in this study, therefore, assumed responsibility for collection of their own expressions about works of art (i.e., individual portfolio collections) as well as most of the responsibility for appraisal of personal and collaborative art understandings. The procedure documented in this dissertation requires a sequence of self- and group-assessment. These assessments increased in complexity as the art knowledge base expanded.

Statement of the Problem

This study documents, analyzes, judges, and contrasts and compares the art learning and critical thinking skills of certain elementary-age language-arts challenged students as
these students were alternately taught with discipline-based art education methodology and traditional language-arts intervention approaches.³

The needs of dissimilar student populations are readily addressed through application of quality comprehensive art education practice. Scrutinizing works of art from the standpoints of four distinct entities provides a multifarious learning environment that is flexible enough to meet the challenges of diverse learners. To design an appropriate and equally flexible method for tracking and assessing cognitive growth in visual arts, many instruments of measure were investigated.

A review of related literature reveals that a variety of instruments exists to measure art learning in elementary classrooms. Individually, however, each of these instruments lacks necessary components (i.e., measuring less than all four art disciplines) or is so complex as to be too cumbersome for daily application by teachers. No previous tracking system has been designed for the distinct purpose of scrutinizing development of comprehensive art understandings as evidenced in written and oral expressions about works of art. For this reason this study developed and administered an original and practical method to be referred to as the Arts Cognitive Tracking System (ACTS) throughout the remainder of the paper. The ACTS concomitantly measures recognition and understanding of aesthetics, art criticism, art history, and studio production as reflected in the written and spoken expressions made by a select group of students about works of art. Additionally,

³ Language-arts intervention programs, as defined by the district in which this study was conducted, is remediation for those students who have either or both written or oral communication disorders. Educational needs of the students are addressed by specialist teachers who are licensed speech pathologists or certified special education teachers. Because of the nature of the communication problems that these students exhibited, a licensed speech pathologist-language specialist was responsible for their language-arts intervention program. To minimize confusion about this educator’s title, she will be referred to throughout this document as a communications specialist.
this study utilizes the same approach and system of documentation with student work
drawn from samples other than those chosen for the core study.4

In regard to this study, these questions were posed and answered:

1. Can learning about works of art through DBAE strategy, in particular using
   methodology of art discipline practitioners, affect art understandings of certain
   elementary-age students as distinguished in individual students' written and oral
   narratives?

2. Can the ACTS accurately reflect change or growth in individual student's art cognition
   as well as cognition in another curricular subject area (i.e., language arts)?

3. Can learning about works of art with procedures used by art discipline experts change
   affective behavior toward artists and works of art?

4. Can the ACTS be utilized by other student populations beyond those in the group
   under study?

5. What information has been learned by the students?

Purpose of the Study

Development of an efficient system for collecting and documenting evidence of
cognitive growth in visual arts is the principle objective of this research project. This
system was applied to the written and oral communications of a select group of
elementary-age children enrolled in a language-arts intervention class in a North Texas
independent public school district. Students in the study were subjected to DBAE
methodology as a fundamental framework for language-arts remediation. To meet this
goal, the performance-based ACTS was developed and implemented.

4 Writing samples gathered from preservice elementary art teachers enrolled during the fall 1995 and
spring 1996 semesters at the University of North Texas in an art materials and processes course were
analyzed concurrently with written art expressions of the elementary students in the study.
Within the context of this study, correlation between visual-arts education and language-arts intervention was developed with an emphasis upon an understanding of aesthetics, art criticism, art history, and studio production. Interdisciplinary connections among these four components of art as well as between visual arts and language arts were associated to these understandings. Moreover, the side effects of vocabulary acquisition and maintenance, inference of meaning, and written and oral elucidation about works of art were examined in context to the visual-arts and language-arts correlation. Impact of DBAE upon art understandings and language-arts remediation outcomes was inspected to determine possible reciprocal relationships between these two distinct specialty education programs.

**Hypothesis**

This quasi-experimental study focused upon the effects of discipline-based art education practices upon art cognition and language-arts learning outcomes of a group of language-arts deficient elementary-age\(^5\) students in a suburban North Texas, middle-income independent public school district. The null hypothesis was that after students were exposed to traditional and non-traditional language-arts intervention that differences would not be noted between pre- and post-tests of communication ability and pre- and post-interviews pertaining to opinions about artists and art objects. Additionally, portfolio collections that included written and oral discussions about artists and works of art and associated production activities and utilized as a facilitation medium to compile student work would not contribute to cognitive change.

\(^5\) These students were assigned to fourth-grade classrooms and were below reading level for their age. Occasionally other students from different grade levels but with similar language-arts deficiencies joined the group under study. Only the cognitive growth of the original 11 students who completed the entire school year in this language-arts intervention program are tracked in this study.
Justification of the Study

Why assess art learning and understanding? Most art educators would agree; the question is not why should art learning be assessed, but how. Assessment of student learning furnishes information to teachers, students, administrators, parents, and other interested stakeholders about the efficacy of school programs inasmuch as assessment procedures concentrate on collecting documentation of what students understand and are able to accomplish. This infers that goals and objectives have been set and that certain standards are used as yardsticks to measure changes of student cognition. Mitchell (1994, p. 6) states, "one cannot judge progress toward a goal until one knows what the goals are." Hence, standard setting should precede assessment. Accountability to quality learning outcomes remains tantamount to all academic disciplines (which include the arts) and therefore affirms assessment of art learning as obligatory and undeniable.

Striving to meet established national standards, providing measurable goals and objectives, and assessing if what was taught was learned contributes to accountability of any curricular topic in relation to cognitive development of students. With national educational prerogatives in place and local goals and objectives directing education within America's communities, the only component lacking is adequate tracking procedures for student cognitive growth in the arts. Measurement of art learning at this moment remains somewhat elusive, although it is not for lack of interest from a variety of art education theorists and practitioners.

To position arts education as an equal to other academic fields, the Consortium of National Arts Education Associations of Art, Dance, Music, and Theater began work in 1991 to develop national standards for arts education. The outcome of this confederation culminated as a portion of the 1994 Goals 2000: Educate America Act, a first step towards developing standards for all academic disciplines. These standards specify that
comprehensive visual arts programs are essential to the education of every student and, moreover, place arts education in the same educational arena as mathematics, language arts, social studies, and the sciences (i.e., "core" curriculum). Hausman (1994, p. 1) lauds the centrality of art to education for all students and welcomes the inherent opportunities and challenges to teaching and learning that this inclusion offers. Among the most important of these challenges, the author states, is "understanding the importance of growth and development factors as well as contextual circumstances within which students are learning (in art)" as one of many purposes that the standards for art serve. Consequently, measurement of longitudinal student progress in art remains pivotal to the accountability procedure.

Accountability in education, it should be noted, harks to fundamental beliefs of the American people. Viewed as a democratic privilege afforded citizens of the United States, public education answers to federal, state, and local governments. Communities tend to shape local education to fit particular idiosyncratic interpretations (within the law) of what is educationally sound or correct for the area (Armstrong, 1994). Since all of these entities provide financial support for public schools, each anticipates and demands that individual schools (and the programs within those schools) meet goals and objectives for promoting student cognitive growth. Contributing to accountability of educational programs is assessment of student understanding. The question remains: how can art educators make use of national standards, state directives, and local objectives to devise appropriate methods for documenting growth in art understanding? This question is being explored by a number of educational researchers. Most of these researchers concur that portfolio assessment offers the broadest and most capable foundation for arts appraisal, but none supplies a practical instrument that accurately tracks cognitive growth as documented by the portfolio collection.
Eisner (1991), Broudy (1991), Dobbs (1992), Armstrong (1994), and Elbow (1991) affirm in their individual and separate contributions that quality, comprehensive visual arts programs can and should supply evidence of cognitive growth. Eisner and Broudy promote the inherent qualities of art learning and rebuke concurrent assessments with other disciplines. Dobbs, Armstrong, and Elbow (among many other authors) suggest portfolio collections as means for gathering documentation of learning.

Eisner and Broudy philosophically urge that art should be taught for its intrinsic values and contributions to a well-rounded curriculum, but question the validity of art cognition being measured by change in test scores in other subject areas. Broudy (1991, p. 1) elaborates, "that the art experience is distinctive and therefore cannot be subsumed under other subjects...(and) that it affects all aspects of experience."

Although many art educators probably would agree conceptually with Eisner's and Broudy's view about the inherent value of art learning, evidence indicates that numerous school administrators continue to require art programs to prove their mettle by the surreptitious practice of correlating test scores between visual arts and other disciplines. Brandt (1987) suggests a logical reason for this effort to link art learning to core discipline cognition: when schools are threatened with budget constraints, most often fine arts programs are the first subject areas to be eliminated. Accordingly, administrators seek proof that art education is more than a frill subject. It becomes a case of the dog chasing its tail when teachers and administrators agree that art is innately valuable but neither proponent is able to provide the proof of the discipline's merit. Broudy (p. 1) counters by adding that "the school board must be convinced that the aesthetic experience (of which art is a special form) pervades every phase of life ---- cognition, judgment, feeling, and action." Cognitive proficiency demonstrated through portfolio collections seems to offer a solution to the problem if appropriate assessment is developed and used.
Both Dobbs and Armstrong propound the use of portfolio collections as evidence of learning over time. Dobbs (1992, p.47) points out the simultaneous worth and downfall of portfolio collections as placing "a premium on students' artwork as an ultimate measure of achievement" while ultimately failing to measure appropriately those performances not classified as production activities. Similarly, Armstrong (1994) praises portfolio collections but cites only non-specific assessment procedures for their content.

Elbow (1991, forward) embraces the notion of portfolio collections as a way of empowering teachers and students to document learning and offers a hint about rating the portfolio contents. "The use of portfolios," the writer says, "exerts a subtle pressure against holistic grading and in favor of analytic grading, against single measures of intelligence or skill in favor of the idea that humans have multiple intelligences and skills." Again, art educators are called upon to assess but are given no specific guidelines other than what is inappropriate procedure.

Dobbs (p.49) summarizes this assessment problem succinctly:

One especially vexing challenge for assessment in DBAE is the longitudinal judgment of students' work. If DBAE is to address knowledge, understanding, and creativity in art over grades K through 12, some form of portfolio record must be developed to communicate change and achievement....Art educators must continue to devise ways of evaluating student achievement in DBAE that will provide indications of progress.

Justification for the development and application of the ACTS results from the exigency of visual arts education to be accountable for content and learning. Supporting this idea of the accountability of visual arts to learning are the principles of The Ohio Partnership for Visual Arts assessment project that direct, in part, that "assessment should focus on important learning objectives." Additionally, these directives state that "we can identify desirable achievements by looking at experts in the disciplines (because) there is a
novice-to-expert development pattern related to the inquiry processes of creative artists, art historians, art critics, and philosophers of art" (Mitchell, 1994, p. 52). The ACTS tracks student cognitive growth through written and oral expression of aesthetic, art critical, art historical, and production investigations about works of art. Additionally, the strategy is "user friendly" so that it easily can be mastered by teachers and students alike, allowing prompt feedback to stakeholders about what students know and whether program objectives, as well as individual objectives, have been met.

Limitations of the Study

The scope of this research problem has been directed specifically towards certain elementary-age students who exhibited particular language-arts deficiencies and who attended one particular suburban North Texas public elementary school. This small group purposefully was selected for a variety of reasons. The initial pilot studies, which included approximately 500 participants, had yielded broad results that enabled general inferences to be made without tracking individual learner's cognitive changes. By narrowing the field of study exclusively to this modest-size group, a different type of individualized tracking was made possible. Specific and tangible cognitive changes were readily documented, providing evidence of personal art understanding and analogous language-arts cognition within individual learners who demonstrated similar intelligence quotients.

This concentrated study included exposing these language-arts challenged students to diverse opportunities for learning. These opportunities included:

- Approaching works of art from the perspective of aestheticians, art critics, art historians, and artists,

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6 With each participant in the pilot studies contributing two written expressions, approximately 1,000 pages of written work were generated. Only a portion could be sampled and analyzed.
• Participation in visual arts investigations that correlated to particular language-arts intervention objectives,
• Development and utilization of an extended art vocabulary, and
• Acquisition and utilization of written and oral communication skills.

The communications specialist was responsible wholly for development of traditional language-arts remediation lessons along with the delivery of traditional and non-traditional language-arts remediation lessons. The researcher assisted with development of meaningful visual-arts lesson plans for non-traditional application of language-arts intervention.

Distinctly excluded from this study were all students not enrolled in the selected language-arts intervention class. A similar synchronous study, however, used written and oral expressions from a group of college-age preservice art specialists to contrast and compare to the written and oral expressions from the elementary-age group included in the study.

Because this study endeavored to develop a practical device for tracking learning in visual arts, the procedure concentrated upon whether students were able to:
• Approach works of art from the distinct views of art discipline experts,
• Better relate art understandings in written and oral expressions,
• Recognize the four disciplines of art in their own written and oral art expressions and in the written and oral art expressions of their peers, and
• Interfuse visual arts cognition with better language-arts understanding.
CHAPTER II

REVIEW OF LITERATURE

Overview

The historical and theoretical antecedents of Discipline-Based Art Education (DBAE) provide the foundation from which this study builds. A review of the related literature since the mid-twentieth century, therefore, delineates the origination and development of DBAE and cites four areas of pivotal interest to this study. These topics of interest are: shifts in attitudes about art teaching, types of instruments of measure used in art programs, interrelationships between visual arts and other content areas, and visual arts and cognition.

Historical and Theoretical Antecedents: Shifts in Attitudes about Art Teaching

Discipline-based art education echoes a shift in educational attitudes abruptly brought about by political issues of the late 1950s. Driven by the ideals of scientific rationalism, a post-World War II educational movement that used scientific ideologies as a basis for curriculum reform and educational accountability (Efland, 1990), the foundations of DBAE mark a clear division between two independent art teaching camps. To a certain extent this conspicuous separation between the two philosophies persists today as exemplified by those educators who embrace production-oriented approaches and those who incorporate all four art disciplines in their teaching.

In a knee-jerk reaction to the Soviet Union's launching of the first satellites, Sputnik I and Sputnik II (1957), American educational practice fell under immediate national
scrutiny to determine its strengths and weaknesses. Placing a quick fix upon public school curriculum, the sciences and mathematics were expounded as preeminent to quality learning experiences in the expectation that the United States would rush ahead in the fledgling international space race. Banished to the educational outpost were the fine arts. Because of this ostracism, art educators found themselves in the somewhat familiar situation of defending their field with generally one of two distinctly opposing rationales: that of art educator Viktor Lowenfeld or child psychologist Jerome Bruner.

In *Creative and Mental Growth*, 1947, Lowenfeld carefully plotted and illustrated developmental stages of children's art, focusing upon the child-as-artist who required minimal external adult intervention. Particularly helpful to teachers with minimal or no art training, Lowenfeld's approach allowed virtually any teacher to be an art instructor. Although valuable in assisting educators with implementation of age-appropriate art lessons, the unfortunate backlash of Lowenfeld's philosophy is the deceptive assumption that anyone can teach art (a problem that haunts both DBAE and non-discipline-based art programs today). The conviction that art should be taught as a subject with its own predetermined goals, objectives, solid content, and assessment strategies was antithesis to Lowenfeld's laissez faire educational approach.

In a contrasting mode, Bruner (1960) proposed and promoted the theory of "concept knowledge," a complicated hypothesis about learning that suggests all subject areas have certain basic parts that make up their structure. Recognizing this structure within a subject and then teaching through it, Bruner asserted, assisted students with learning. To art teachers this meant that they could no longer simply teach disconnected production activities, but that they were obligated to define art's infrastructure and teach from those elements in such a way as to make art learning valid. In the wake of the Cold War, with the visages of so-called new math and concentrated science efforts determining the future
of curriculum content, many art educators hung their collective hat upon Bruner's theory in an effort to bolster the validity of threatened art programs. These educators perused their subject's makeup for its essential organization and found this to be the same four disciplines\(^7\) that today comprise DBAE. Consequently, many art programs changed from the Lowenfeldian "child-as-artist" ideal and added art history and art criticism to their studio-based curriculum. Literature from this time implies, through lack of mention, that aesthetics was generally ignored in this inaugural discipline-based environment.

Bruner's philosophy additionally prescribed two components essential to any quality educational experience regardless of subject area concerned. These two characteristics required (1) that the learner develop fundamental concepts and skills in any given field of knowledge and (2) that the learner be able to exemplify expressive uses of the knowledge gained. "Expressive" becomes the key word in Bruner's explanation in regard to this study. It is not enough for the student to recognize bits of information about a subject; rather, the student should be able to apply the knowledge in a useful way that demonstrates intrinsic understanding. This does not necessarily mean that students should be treated as discipline experts, but that students understand the philosophical nature of discipline experts to gain insight into creative and interpretative processes. Broudy (in Smith, 1989, p. 5) reiterates this assertion by remarking that the overriding intention of education is not to develop specialists such as artists or critics, but that education is to provide interpretative blueprints of sorts for "understanding and appreciation typically used by non-specialists."

Incumbent upon the educator who subscribes to Bruner's thesis (and consequently the assumptions of DBAE) is that cognitive classroom experiences should be devised in such a

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\(^7\) Disciplines, as defined by Bruner, are considered "fields of intellectual inquiry" as contrasted to subject matter which consists "merely of facts and techniques organized for instruction" (Efland, in Smith, 1989, p. 62).
way as to build upon prior understandings of a given subject. That is, individual tasks should become progressively more complex as the knowledge base within a specific subject expands. Remaining undeveloped in this approach for art learning, however, are implementation and documentation of an appropriate method for following student cognitive growth and understanding of works of art.

**A Sampling of Visual Arts Instruments of Measure**

A mélange of assessment procedures has emanated from the accordant efforts of visual arts to validate itself within the general curriculum. These assessment procedures range from the expansive to the compact; all optimistically offering opportunity for future use in curriculum development, teaching strategies, and assessment schemes. Two broad-based assessment projects worthy of mention are Harvard University's Arts PROPEL and Florida State University's Comprehensive Holistic Assessment Task (CHAT). Two other assessment projects that focus more narrowly upon individual student's output are Johnson and Cooper's System for Assessing Written Criticism and Stavropoulos' Diagnostic Profile of Art Understanding.

Both Arts PROPEL and CHAT similarly challenge teachers to develop meaningful learning experiences founded upon works of art. Based upon the theory that learning and assessment are simultaneous, Arts PROPEL suggests "sustained projects" in any of the fine or performing arts. These projects, designed to be carried out during unspecified but generally lengthy time periods, invite students to meditate about a topic, to hypothesize, and produce original solutions. As students progress through an arts program, expectations rise and final learning outcomes become more complicated. Maintaining

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8 Systematically constructing increasingly difficult tasks based upon demonstrated prior understanding is commonly classified as sequencing, a principle inherent to DBAE methodology.
portfolio collections of the work allows stakeholders to gauge the scope of learning accomplished. Under the more prescriptive CHAT model, students in visual arts programs are exposed to sequential units of instruction that provide for incisive investigations of a work of art through the "essential" doors opened by the four disciplines of art and the "desirable" doors opened by interdisciplinary connections through core subject areas and other works of art. Both Arts PROPEL and CHAT promote quality, comprehensive learning experiences that culminate in measurable outcomes; however, neither offer specific guides for the measure of individual student enterprise.

In an effort to narrow the scope of art assessment and to provide models for actual appraisal procedures for educators, Johnson and Cooper suggest a method for assessing learning in one art discipline (art criticism) while Stavropoulos' diagnostic profile assesses two (art criticism and art history). In the former procedure, the researchers assert that written art criticism concurrently "provides students with greater depth in learning, allowing (for refinement of) verbal skills and perceptual abilities (while it) allows the teacher to provide more detailed guidance...and better evaluation of critical activities, and assessment of student growth" (Johnson and Cooper, 1994, p. 22). This prototype supplies a rubric wherein teachers can numerically score student writing for descriptive, interpretive, and evaluative ideas. In the latter diagnostic profile, Stavropoulos presents a similar (but more complex) rubric that rates understandings along with misunderstandings in descriptive, interpretive, and art historical writing.

While both of these assessment formats develop rigorous methods for judging the learning prompted by certain art disciplines, an obvious shortfall in both is that neither assesses the complete picture (i.e., all four art disciplines). Additionally, as mentioned in

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9 CHAT's schematic model designates "essential" as those components directly relating to interpretation and understanding of a particular work of art. "Desirable" components encompass other subject areas and works of art (Mitchell, p. 55).
the introduction to this study, both systems (especially the diagnostic profile) require extensive teacher training and are somewhat cumbersome for practical classroom application. Nonetheless, both of these systems offer a springboard for development of an appropriate, yet practical, means of tracking growth of comprehensive art learning.

Interrelationships Between Visual Arts and Other Disciplines

Alfred North Whitehead, essentialist educator of the earlier decades of the twentieth century, stated that, "you cannot put life into any schedule of general education unless you succeed in exhibiting its relation to some essential characteristic of all intelligent or emotional perception" (1949, p. 20). Recognizing the importance of a unified curriculum, Whitehead spoke against isolated learning experiences in a disconnected curriculum as the "dry rot of education." Active learning, Whitehead suggested, requires demonstration of skills rather than recitation of memorized data. This foundational commonality that Whitehead advocated provides a base upon which all areas of the curriculum, inclusive of the arts, are able to unite. Art learning, like any other area of the curriculum, does not stand apart from other cognitive enterprise. When approached with similar considerations as those provided to academic subjects, visual art becomes an integral component not easily separated from what is traditionally labeled core curriculum.

A perusal of programs implemented in public schools during the previous 15 years indicates that present day educators recognize the value of a correlated curriculum. Moreover, these educators value art as a practical method for addressing curricular needs and developing higher order thinking skills in students. Although many of the earlier interdisciplinary programs do not meet the stringent criteria of pure DBAE methodology and lack the essential component of placing art imagery at the center of learning, the inference of the importance of art to quality educational experiences is made clear. A
selected sampling of some of these programs indicates that visual arts education assists with cognition in other disciplines and that art is an essential component of both general elementary curriculum and special education elementary curriculum (Werner and Burton, 1979; Ives and Pond, 1980; Kollis, 1980, and Brandt, 1980). In more recent interdisciplinary research, Stephens (1991) found that comprehensive art education can have positive impact upon not only cognition in visual arts but in language arts as well.

**Visual Arts and Cognition**

"Arts should be a part of the core curriculum because human cognition is wider than discourse and because the forms one is able to use define the scope of the reality that one can know" (Eisner, 1980, p. 14). This concise, yet forceful proclamation, directs visual arts onto a path that enjoins art theorists and practitioners to circumscribe the expansive dimensions of art learning. By systematically determining what is learned and how learning occurs in visual arts, the discipline becomes progressively stronger as an integral component of general curricula.

Any number of researchers have developed paradigms for the hierarchies of art inquiry or have contributed data about art inquiry processes and the value these processes have upon cognition (Feldman, 1967; Erickson, 1983; Hamblen, 1986; and Stewart, 1988; and others). Models developed and put to use by these authors typically track art understandings from lower order thinking skills (i.e., knowledge acquisition) to higher order thinking skills (i.e., qualified or informed judgment-making). Feldman's model, in particular, gained widespread popularity within the field and is commonly used as a construct for art critical exploration within classrooms. Parallel to Bloom's Taxonomy of Thinking Skills (1956), each of these models strives to achieve the result of students becoming "innovative thinkers and identifiers of problems" (Armstrong, 1994, p. 36).
Feldman (1970) added that skills development may be secondary to responding to works of art. Verbal and written expressions, then, could provide the key to assessment of art cognition. The development of a reliable, yet practical, measure for this cognitive growth continues to confound the field.

Cognitive researchers Perkins and Blythe (1994, p. 14) substantiate the objectives of art cognition paradigms by stating that "understanding is a matter of being able to do a variety of thought-demanding things with a topic--like explaining, finding evidence and examples, generalizing, applying, analyzing, and representing a topic in a new way." It is a general assumption of cognitive psychologists that information is obtained, stored, or lost depending upon previous understanding. (Housen, 1992; Herman, Aschbacher, and Winters, 1992) Therefore, building upon prior understandings gives learners a knowledge base that can continue to grow. Providing an educational setting that encourages independent thought founded upon interconnected understandings enhances learning outcomes. Quality, comprehensive visual arts teaching addresses student understanding through development of higher-order thinking skills (e.g., analyzing or hypothesizing about works of art) and performances. These sustained performances can be documented through art products in addition to written and oral expression. Efland, Koroscik, and Parsons (1991) uphold this notion by stating that art-generated writing by students acknowledges reasoning processes of the writers.

The National Visual Arts Standards (1994) mandate that students become visually literate and artistic problem-solvers who apply visual arts concepts as solutions to real-world problems. The Getty Center for Education in the Arts (1985) and Wilson (1988) became early supporters of written and verbal responses to works of art as a gauge of cognitive measure in art. Continuing in this vein, Wilson (1992) amended his assessment strategy to be more inclusive of higher order thinking skills and less reliant upon
information recall. The author suggests a performance-based assessment that
demonstrates understanding of documented progress in art understandings.

Summary

Visual arts education has responded to the challenges of the past half century in a
variety of ways extending from the initial redefining of intrinsic structure to expanding
boundaries of content. Intervening years have brought evolutionary changes that have
demanded new forms of assessment. These assessment forms are exemplified by both
capacious and specific instruments of measure.

From outside the field of art education, other curricular disciplines have sought visual
arts as a connection that unifies the general curriculum. Recognizing the worth of
interdisciplinary connections, many educational researchers have made correlation
between visual arts, core subjects, and special education programs. Internally, cognition
in the arts has spawned cognitive paradigms that closely parallel similar paradigms found
in academic areas.

With federal mandates prescribing that students become visually competent,
appropriate methods for assessment of this competence becomes obligatory. Remaining at
large is the development and implementation of a method for documenting cognitive
growth in visual arts that is at once useful and practical to teachers, students, and other
stakeholders. This study addresses the problem.
Overview

Triangulation,\textsuperscript{10} according to Miles and Huberman (1984, p. 234), "...support(s) a finding by showing that independent measures agree with it, or at least, don't contradict it." The term itself, coined by Webb (1965) refers to looking at a subject from a variety of related and unrelated viewpoints. The general notion is one of unobtrusive measure that develops corroboration between diverse tactics of evidence collection. By using a triangulation methodology in this study, a variety of approaches provided different perspectives of the same outcome.

Employing a triangulation approach during one school year, this quasi-experimental study gathered both qualitative and quantitative data to establish evidence of art learning as well as change in written and oral expression about works of art by a group of language-arts deficient students. The independent indices selected for comparison include verifactory-corroborative measures and inferential-contrasting measures. Verifactory measures consisted of pre- and post-tests of non-verbal intelligence administered by the communications specialist. Additionally, performance documentation of student understanding as recorded in each student's written communications was maintained in personal portfolios, while a limited amount of oral dialogue was noted and gathered by the instructor. The Arts Cognitive Tracking System in tandem with portfolio collections

\textsuperscript{10} Sevigny (1981, p. 66) describes triangulation as "multiple comparisons of a single phenomenon, group, or unit at two or more points in time or ... (using) multiple perspectives to measure a single phenomenon at a single point in time."
served as documentating devices for these expressions. (See Appendices A and B). Inferential measure incorporated pre- and post-visual arts interviews (Appendices C and D) with field notes compiled by the researcher.

Description of the Arts Cognitive Tracking System in Non-Traditional Language-Arts Intervention

The crux of this study scrutinized the effectiveness of the Arts Cognitive Tracking System to gauge student growth in understanding works of art. The multi-layered system offered opportunities for students to act and respond to works of art by using the strategies of art discipline experts\(^{11}\) and then to assess their own responses and the responses of their peers. The ACTS was piloted in two large studies which are detailed in the next section of this chapter. This section details the ACTS as it was applied during the school year under consideration.

ACTS utilizes a color-coding process wherein one of four colors is used to mark art expressions as essentially one art discipline. The colors and associated disciplines are: green for aesthetics, red for art criticism, blue for art history, and orange for production. On occasion more than one color may be applied to individual art statements.

The communications specialist used a reference document provided by the researcher that outlines typical responses for each art discipline expert. (See Appendix A). Later, students developed their own DBAE reference document that replaced the original. (See Table 2).

Approaching works of art from the viewpoint of discipline experts is a process that requires careful buttressing. So that cognitive growth or change in understanding could

\(^{11}\) Art images used during the course of this study were shown in a specific and recurring order: representational, abstract, and non-objective.
be tracked, students were given an opportunity before starting and subsequent to concluding the study to write and talk about Parson Weems' Fable, 1939, a representational work of art by American painter Grant Wood. These pre- and post-written and oral expressions were completed without benefit of explicit instruction from the cooperating communications specialist. (See Chapter IV for samples of pre- and post-writing samples). The concepts of DBAE and the roles of individual art discipline experts were introduced independently after the pre-writing activity thus allowing students an opportunity to consider the unique qualities of each discipline before advancing to another. Before termination of the study, students were synchronously applying various art discipline components from the standpoint of different art discipline experts.

The first non-traditional language-arts intervention activity involved students observing, talking about, and writing about The Garden of Eden, 1828, a representational painting by American artist Thomas Cole. Students were instructed to address the image from the stance of the artist and to focus upon questions the artist may have considered while creating the piece. To assist children with this task, the communications specialist posed this sequence of questions:

- What is the problem?
- Whose problem is it?
- Think of solutions.
- Explain the best solution.
- Try an alternate solution if a better resolution is needed.

After writing about the work of art, students were instructed to underline with an orange crayon all words, phrases, and sentences that related to production ideas (e.g., media, tools, technique, type of artwork, or instructions for creating the work). Following this writing and marking activity, students read aloud individual narratives while the
remainder of the group attempted to identify words, phrases, and sentences that the
discipline expert (i.e., the artist) would use. The oral discussion generated by this reading
was audio taped and analyzed by the communications specialist. All written work was
placed in personal portfolios. The communications specialist stored audio tapes in her file.

During the second non-traditional speech intervention activity, students were
introduced to an abstract work of art, *Hina*, 1990 - 91, by American sculptor Deborah
Butterfield. The devices used by art historians such as studying titles, dates, names of
artists, art styles, contributory world events, and cultural perspectives were employed for
this activity wherein children were asked to determine:

- Who made the work of art?
- What type of artwork is it?
- When and where was the work made?
- Why was it made?
- Where is it now?

A similar writing and color-coding activity as used during the first non-traditional
intervention was assigned. At the conclusion of the writing, students were asked to
underline all art historical references in blue. Group discussion centered upon the art
historian as a discipline expert, however, previously learned art production inquiry was
employed so that any statements about the production discipline expert could be
contrasted and compared to the art historian.

The third non-traditional language-arts intervention used a non-objective painting, *To
Miz-Pax Vobiscum*, 1964, by German artist Hans Hofmann, while the fourth non-
traditional intervention returned to Cole's *Garden of Eden*. Both interventions emulated
the previously outlined format; the former introducing the characteristics of the art critic's
approach to works of art, the latter acquainting students with the aesthetician's method.
Critical inquiry centered upon observations and conclusions that reflected:

- Accurate and detailed descriptions of the work of art,
- Analysis of the use of elements of art and principles of design within the image,
- Individual interpretations or finding meaning within the work, and
- Judgments about the work.

Aesthetic reasoning concentrated upon broad issues of art inquiry that included:

- Questioning the nature of art,
- Asking if the image is art and what makes it art or not art, and
- Exploring what constitutes beauty and value or lack of beauty and value in works of art.

Students underlined in red their own art critical commentary (i.e., statements that describe, analyze, interpret, or judge) while aesthetic statements or questions (i.e., broad issues about beauty or worth of works of art) were underlined in green.

The rotating cycle of representational, abstract, and non-objective imagery continued after all the art disciplines were introduced. From this point, students were encouraged to address each work of art with the four disciplines. Color-coding of the written and oral expressions continued to be tracked, contrasted, and compared for evidence of stagnation, decline, or growth in art cognition.

As a culminating activity, these language-arts students, in a collaborative group, selected and researched one work of art from a local art museum. Their cooperative effort was compiled into a one-page article tentatively to be published in the North Texas Institute for Educators on the Visual Arts Newsletter. Additionally, students in the study selected posters of works of art that they most enjoyed, researched the pieces, and then compiled the images into an exhibition for their peers. Acting as docents, the students led their classmates through the exhibition as a capstone to their learning.
Consequent traditional language-arts intervention asked students to observe typical writing prompts\(^\text{12}\) as the communications specialist applied traditional intervention methodology.

**Pilot Studies and Concurrent Study**

Besides the population of language-arts challenged elementary students who participated in the study, the Arts Cognitive Tracking System has confirmed its worth in three other research venues. Results from two of these groups served as field tests, allowing adjustments in strategy, application, and analysis of data prior to use of the system with the research population. A third group existed concurrently with the study’s population, but had highly different objectives than those of the targeted group. These distinctively different populations were:

- Elementary, intermediate, and secondary public school students,
- Art specialists and classroom teachers, and
- Preservice art specialists.

Approximately 250 students enrolled in the Fort Worth ISD participated in a museum-school collaborative wherein these students were provided multiple trips during one school year to the Amon Carter Museum. Both the school district and the museum expressed a need to assess the effectiveness of such a program upon student learning. A prototype of the ACTS was developed and administered to these students. Somewhat different in its initial approach, this model was designed to determine if any change in understanding could be documented after the students attended a museum program about a specific exhibition. Prior to the museum visit and without benefit of instruction, students

\(^{12}\) These writing prompts include images generally not considered works of art. Characteristically, these prompts are simple line drawings such as those found in coloring books.
were given a postcard image of one of the works of art that they would study at the museum and were asked to write about the image. These writings were color-coded by graduate research assistants and were not returned to their authors. Most of the writings indicated lack of observational and interpretative skills, focusing mainly upon superficial description of objects within the art image. After visiting the museum and participating in interactive art activities, students were asked to write about an image that they had examined during the activity. Graduate research assistants again color-coded these writings that were not returned to the students. Although the conclusion was drawn that few writings indicated strong changes in art understanding, this negative finding suggested the potential of the system while indicating necessity of changes for future use of the ACTS. These changes were:

1. Groups should be matched by ability level to eliminate problems associated with widely varied language-arts competencies,

2. Teachers and students should be trained in the use of the color-coding system so that they are able to evaluate and address their own art understandings or lack of art understandings, and

3. Teachers and students should use the system over time to augment art cognition.

With these revisions to the ACTS in place, another field test was attempted with approximately 150 art specialists, classroom teachers, and museum personnel who attended a two-week art seminar. This seminar focused upon DBAE strategies for elementary interdisciplinary teaching. Additionally, museum visits were a major component of the seminar. Similar to the inaugural field trial, these adult participants were given no instruction before being asked to write about an art image. Writings were color-coded by art specialist leaders who had been trained in the application of the ACTS. The color-coded writings were placed in individual portfolios until the final day of the
seminar when again the adult learners were asked to write about an image. After the final writing, the teachers were assigned to collaborative groups of four. Each person in the group was designated as an art expert for one of the disciplines. Writings produced by the groups of four were read by each member of the group. The specified discipline expert used the prescribed color to code words, phrases, and sentences that referred to the appointed discipline. Groups then discussed the writings and the coding to decide if the essays were balanced in discipline content and if the writings were accurately coded. A final comparison of first writings to final writings allowed these adult learners to track their personal art cognitive growth. It was concluded that ACTS was successful with this group because the learners were allowed to review their initial writings, compare them to a final writing, and to discuss and clarify in a collaborative group their understanding about the four disciplines of art. The success produced by the application of the ACTS in this form suggested that the system should be tried in a classroom.

Simultaneous to the study detailed by this dissertation was utilization of the ACTS for evaluating synthesis of DBAE theory and teaching strategy in groups of preservice art specialists. Application of the system with these college students was the same as with the research group. Because of the basic art knowledge that these older students already possessed, the ACTS provided opportunities for the preservice teachers to assess and refine the accuracy of their individual art cognition before attempting to teach from the framework of DBAE.

Visual Arts Training of the Communications Specialist

In the school district selected for study, certified elementary specialists are responsible for instruction within individual fields of expertise. These designated special areas of instruction include visual arts, music, physical education, speech therapy, library arts,
gifted and talented, and remediation. Master teachers from these fields state that they recognize the importance of interdisciplinary connections and strive to work together to create a unified curriculum.

All elementary visual arts educators from this district have been introduced to the theory and methodology of discipline-based art education. In addition, certain other special area teachers (e.g., gifted and talented instructors and librarians) and a large number of generalist teachers also have basic DBAE training. Besides this fundamental background in DBAE, the communications specialist chosen for this study voluntarily attended a graduate seminar in DBAE methodology and leadership. The summer following this seminar she served as a district leader in presenting DBAE to her peers (i.e., elementary art specialists, generalist teachers, and other special area teachers) within her home district. Contributing to the overall effectiveness of this study was her exemplary record as a communications specialist, coupled with her interests in interdisciplinary connections and comprehensive arts education.

Collaboration Between the Communications Specialist and Researcher

The nature of this study required that the communications specialist and researcher collaborate throughout the school year. Initially, this collaboration was limited to a scheduled time when non-traditional language-arts activities were planned. As the year progressed, the collaboration developed into a much more meaningful professional association that benefitted both parties and the students in the study.

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13 Training of these art specialists, other special area teachers, and generalist teachers has been in conjunction to the North Texas Institute for Educators on the Visual Arts summer seminar. This two-week program is an intensive introduction to development, implementation, and maintenance of comprehensive visual-arts education programs. Additionally, certain of these teachers have attended DBAE renewal training workshops.
Before the school year began, the communications specialist and researcher met to define and discuss individual roles and state learning goals and objectives for students in the study. Both agreed that positive learning outcomes for the students were the predominate consideration and that the study would be abandoned if these outcomes could not be produced by the suggested non-traditional program. With this mutual agreement, an interchange occurred that addressed how these positive outcomes would be achieved and a tentative timetable for the year's activities was outlined. The first non-traditional lesson plans were sketched at this time.

Lesson Planning

Lesson planning for traditional language-arts intervention continued entirely under the direction of the communications specialist. The researcher and the communications specialist collaborated for development of non-traditional language arts intervention lesson planning. Poster and smaller reproductions of works of art from five North Texas art museums¹⁴ in addition to images from other art museums were used in the non-traditional lessons.

All non-traditional lesson planning simultaneously centered upon (1) discovering meaning in works of art and (2) addressing language-arts remediation objectives. Each topic represented the locus of the designated subject and was considered equally important to learning outcomes of the students in the study group.

¹⁴ These art museums are: the Amon Carter Museum, the Kimbell Art Museum, and the Modern Art Museum of Fort Worth (Fort Worth, Texas) and the Dallas Museum of Art and Meadows Museum of Art (Dallas, Texas).
Selection of Students for the Study

This study of the effectiveness of a unique method for documenting art understanding upon learning outcomes of certain elementary students in a language-arts intervention class was composed of 11 students (n = 11; % = 100), seven males (n = 7; % = 64), and four females (n = 4; % = 36), all from similar socioeconomic backgrounds as verified by school district and campus administrative records. Ages of the students in the study approximated a normal distribution. At the onset of this study the average age of these students was 11 years, 4 months. Five of the students were either the mean age or older. Six of the students were younger than the mean age. The oldest student was 12 years, 4 months while the youngest was 10 years, 4 months. Gender, ethnicity, and economic criteria were not used as variables in this study but have been mentioned only as descriptors of students. Pertinent descriptive statistics are itemized in Table 1.

Before attending this language-arts remediation class, homeroom teachers identified students with potential language-arts deficits and referred these students for diagnostic evaluation. A district-prescribed, multi-phased process of testing and interviews administered by a licensed diagnostician was implemented to assure that all students met specific criteria for inclusion in this speech intervention program. To be a participant in this specific speech class each student:

- Demonstrated a lack of understanding of certain language-arts concepts (e.g., sequencing of events, differentiation between fact and opinion, and summarization of ideas),

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15 Demographic data about the specific site under investigation is available from the Hurst-Euless-Bedford ISD. Personal data about individual students in this study is confidential and not available.

16 All students involved in this study initially were identified and referred by individual homeroom teachers. In certain other instances, other teachers, as well as parents, frequently refer students for diagnosis of speech intervention programs. Speech intervention programs in this district address oral discourse and written communication.
- Scored on a standardized non-verbal intelligence test no more than one standard deviation from any other student in the group, and
- Demonstrated adequate written and oral communication skills to enable writing and speaking about works of art.

Table 1

Description of Students in the Study

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Count</th>
<th>Percent</th>
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</tr>
<tr>
<td>Number of males</td>
<td>7</td>
<td>0.64</td>
</tr>
<tr>
<td>Number of females</td>
<td>4</td>
<td>0.36</td>
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<td>Mean age of all students</td>
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<tr>
<td>Minimum age of all students</td>
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<td></td>
</tr>
<tr>
<td>Maximum age of all students</td>
<td>12.4</td>
<td></td>
</tr>
</tbody>
</table>

Grading Cycles and Schedule of Language-Arts Intervention

Grading cycles at the elementary campus under investigation were in six-week increments as mandated by the school district. There were three grading cycles per semester. Students attended a language-arts remediation on a regularly scheduled basis; usually twice each week, 30 minutes per session (one hour per week) for a total of six hours per complete grading cycle (18 hours per semester).
Formative and summative performances (i.e., portfolio collections analyzed with the ACTS and traditional communications assessment instruments) assisted with determining the effectiveness of utilizing DBAE processes to address the oral and written language-arts needs of these fifth-grade language-arts deficient students.

**Communications Pre- and Post-Test**

After students were assigned to the language-arts intervention program, the communications specialist administered an untimed Test of Non-Verbal Intelligence, Second Edition (TONI-2).\(^{17}\) This particular intelligence test was administered because of the nature of these student's linguistic insufficiencies and because the ACTS was not intended to be a measure of intelligence. The TONI-2 is a norm-referenced test that is unencumbered by a format that requires "listening, speaking, reading, writing, and substantial motor responses" (Brown, Sherbenou, and Johnsen, 1990, p. 5) and therefore does not discriminate against students whose "test performance may be confounded by language impairments."

Prior to implementation of the study's teaching strategies, individual TONI-2 scores were analyzed. No students scored more than or less than one standard deviation from any other student in the group. This indicated no significant differences in intelligence in these students before speech intervention.

At the conclusion of the spring 1996 semester this test was administered again by the communications specialist. A contrast and comparison of pre- and post-test scores generated by this standardized instrument quantitatively revealed the lack of change in non-verbal intelligence.

\(^{17}\) The TONI-2 is a copyrighted standardized test available for examination from the authors.
Visual Arts Pre-and Post-Interview for Affective Measure

The art pre- and post-interview was administered to students at approximately the same time as the TONI-2. Unlike the TONI-2, this interview allowed students to give a variety of answers that could be considered correct if the student justified the response. The art interview instrument was developed and administered orally by the researcher and it is an untimed measure of art preferences and understandings. This interview did not yield a score; but rather, documented a before and after record of affective and cognitive art behaviors.

This interview allowed children to identify from five groups of three art images which image from each group was preferred (representational, non-objective, or abstract). (See Appendix C). Inquiry continued by asking why each image was preferred and, from all the images, which was the most favored. Using the favorite image, students were asked to state any aesthetic, art critical, art historical, and production information they could derive from the image. Changes in the student's art preferences and understandings were contrasted and compared after the post-interview.

Data Collection

Each language-arts student in this study concurrently fulfilled the roles of the control group and the experimental group. This coexisting dichotomy was accomplished during the first semester by the communications specialist alternately using traditional language-arts remediation methodology (i.e., using typical writing prompts as catalysts to linguistic improvement) and discipline-based art education approaches (i.e., using works of art and the perspective of art discipline experts as a motivation for improving language-arts skills). The cyclic schedule with individual lesson motivation was as follows:

Lesson 1: Traditional intervention, writing prompt
Lesson 2: Non-traditional intervention, representational work of art
Lesson 3: Traditional intervention, writing prompt
Lesson 4: Non-traditional intervention, abstract work of art
Lesson 5: Traditional intervention, writing prompt
Lesson 6: Non-traditional intervention, non-objective work of art

Student responses considered controlled were those that resulted from traditional language-arts remediation treatment. Conventional language-arts remediation lessons prescribe that students observe, discuss, and write about non-art situations, objects, or images. Occasionally these traditional language-arts intervention lessons included production activities such as story illustration or crafts that were not based upon works of art or finding meaning within works of art.

Student responses considered experimental were those that result from non-traditional language-arts intervention treatment. DBAE lessons prescribe that students observe, discuss, and write about art and artists from the perspective of artists, art critics, art historians, and aestheticians. Certain non-traditional language-arts interventions included an appropriate and meaningful production activity centered upon the art object or image studied.

At the completion of each lesson, whether traditional or non-traditional, each student vocally and non-vocally communicated the concepts learned through spoken and written narratives, both individually and collaboratively. Students were instructed in the use of the ACTS and used the instrument to document their own written art understandings. A limited amount of spoken conversation was collected and assessed by the communications specialist using standard language-arts instruments of measure in addition to the ACTS. Written discourse was similarly assessed. All assessed materials were placed in each
student's portfolio. Student work was filed in chronological order so that tracking of individual growth was possible.

At the conclusion of the school year, the post-TONI-2 was administered by the communications specialist while the art post-interview was conducted by the researcher. All written work produced and coded by the students was reviewed and rated by the communications specialist and the researcher. Spoken discourse gathered by the instructor was additionally reviewed. Student-produced materials included:

- Written observations about works of art (produced from non-traditional language-arts intervention) and about writing prompts (produced from traditional language-arts intervention during the first eighteen weeks of the study),

- Collaborative discussions (some audio tapes, but generally in the form of notes taken by the communications specialist) about the content of written expressions, and

- Art production activities.

Using the ACTS, each student's written and oral narratives was reviewed and analyzed for art understanding. Additionally, these expressions about works of art were contrasted and compared for differences in pre- and post-locution and discourse. Data collected from each of these sources followed individual and group growth in art understandings and language-arts improvements. Comparison between traditional and non-traditional written and oral expressions were also contrasted and compared to note any significant differences in results.
RESULTS

Introductory Remarks

Because of research compiled before starting this study, it was anticipated that the writings of those young students participating in the research group would yield results parallel to preliminary findings. For the most part, this assumption was well founded. Similar to the outcomes produced by older students and adult learners in the preparatory research; the expressions of these language-impaired students exhibited enthusiasm for observing works of art and learning about art images from the diverse perspectives of artists, art critics, art historians, and aestheticians. As the semester progressed it became apparent that these children were developing stronger abilities to write about and talk about works of art, but they nonetheless paradoxically intermixed the intrinsic concepts that define each of the art discipline's constituent parts as well as the individual roles of art discipline experts. This somewhat chaotic commingling and misunderstanding of art foundations soon culminated in frustrations vocalized by the students.

Throughout the initial non-traditional language-arts intervention lessons, children in the study generally expressed an understanding of a variety of art production processes besides displaying empathy with artists in solving production problems. Inducing a quandary for these students, however, was the melding of the roles of art critics (i.e., interpretation, description, analysis, and judgment-making), art historians (i.e., factual accounting of time and place), and aestheticians (i.e., questioning value and beauty) toward an artist's creative product. Fearful that such puzzlement would eventually hinder
the group's desire to continue with the study or encumber positive learning outcomes, rethinking discipline-based art education (DBAE) strategies as they applied to this group of students became mandatory. This circumspect deliberation required careful review of the questions originally proposed for research examination and anticipation of future educational needs of the students in the program.

At its onset this study proposed to document, analyze, judge, and contrast and compare the art learning and critical thinking skills of a select group of elementary students as the children alternately were taught remediated language-arts skills with Discipline-Based Art Education and traditional methodologies. Originally, five questions were formulated to serve as the locus of the research. These inquiries question whether learning through a comprehensive art education approach about visual arts and artists affects change in individual student's written and oral discourse, attitudes toward art and artists, and cognition in other curricular areas as tracked through portfolio collections and the Arts Cognitive Tracking System.

At the conclusion of the first complete grading cycle (i.e., six weeks), the study's proposed investigations and each student's progress were reviewed. During this review process, some underlying but significant problems became apparent. Discussions with the communications specialist and subsequent private consultations with individual students in the study confirmed suspicions about these problems and further identified and reiterated three stumbling blocks as:

• An inability for learners to recognize or differentiate between the intrinsic characteristics of the individual art disciplines,

• An additional lack of understanding of how each art discipline's experts used these characteristics in their individual contributions about works of art, and
An insufficient grasp of why experts in each discipline play consequential roles in the understanding of works of art.

To dispel much of the confusion and to provide unambiguous explanations about the roles of discipline experts, the educational needs of the children in this study suggested that two issues not originally considered in the proposal be resolved. The following issues, therefore, were formulated, contemplated, and immediately addressed:

1. What is the nature or source of confusion that tends to hamper student understanding of the intrinsic characteristics of each art discipline and the roles of discipline experts?

2. How can this hindrance be addressed by educators and subsequently overcome by students?

To examine the possible causes for the lack of art understanding exhibited in the written and oral expressions at the conclusion of the first grading cycle each student, as well as the communications specialist, was interviewed. Maintaining sensitivity to each child's language-arts cognitive abilities and the specialist's understanding of DBAE strategy, the conferences were informal and designed to be a personal exchange that would not suggest to the participants that they were failing in the study.

Conversation with the communications specialist revealed that although she was fluent in DBAE methodology she felt inadequately prepared to teach aesthetics lessons and, moreover, thought that she sometimes faltered when alternating between the various art discipline categories. In particular, she worried about "mixing up art criticism with aesthetics" and misrepresenting an art critic as an aesthete. Her hesitation, she asserted, stemmed from her linear thinking style that requires precise definitions and careful delineation of ideas into closed categories. The four disciplines and the roles of discipline experts defy this categorization and thus became problematic. Reminding the
specialist that the goal of the study was not to teach DBAE, but to incorporate its strategies as a framework for learning assuaged her fears.

Of the total number of students (n = 11; % = 100) interviewed about the confusion in understanding the distinctions between art disciplines and the importance of discipline experts, only one (n = 1; % = 09) accurately listed all four foundational components of art. Most of the students (n = 8; % = 73) gave adequate definitions for the term "artist" and could explain the artist's most obvious role (i.e., creating art). Four students (n = 4; % = 36) said that they did not know the individual functions of any of the four discipline experts. None of the students could explain why the discipline experts might be important to understanding works of art. One student suggested his misunderstanding was because he "didn't know why so many people had to tell you what to think about a picture" while another student asked if the artist needed "all these people." One other student succinctly stated the predominant complaint among all the students in the research group: the terms art history, art criticism, and aesthetics were "hard to remember" and she did not understand why these terms or views were so important to know.

From these discussions with the communications specialist and her students, it was determined that the participants in the study needed a DBAE vernacular that was more pliant to their level of comprehension, augmented by definitions that were facilely remembered, more readily internalized, and easily applicable to works of art. Of preeminent importance was the necessity to instill the significance of the roles of art discipline experts. The candid responses of the participants in these interviews underscored this group's feelings that Discipline-Based Art Education theory, together with its terminology, definitions, and approaches to works of art, is initially difficult to master and conceptually elitist in nature. Eliminating these two barriers without diluting the potency of DBAE became an inducement to refine the study's approach. The
communications specialist suggested that student learning could be bolstered if she modified her teaching strategy to include whole language methodology, a procedure with which the children were already familiar.

Inasmuch as the children in this study did not demonstrate a synthesis of DBAE vocabulary and underlying foundations after four non-traditional language-arts intervention lessons, different terminology was sought that could at once be meaningful to DBAE while simultaneously assisting these students with art understanding. Using similar strategy as that practiced in whole language teaching, students were asked to determine alternate, but consequential, words for the terms of artist, art critic, art historian, and aesthetician. The students, moreover, were instructed that the surrogate words must be given precise definitions that upheld the integrity of the originals. Definitions continued to be reviewed and refined throughout the remainder of the study. The words and conclusive definitions that the students decided to incorporate into their art studies and expressions about works of art are presented in Table 2.

Whole language is a psycho-linguistic language-arts teaching methodology that emphasizes fluent written communication without rote memorization of spelling, grammar, or punctuation rules. In theory, learners read, write, and express themselves when they have an individual need to do so. Using this concept, learners first communicate an idea and then are presented with the proper language arts tools to correct the original communication. Through application of grammatical rules to personal communication, learners more effortlessly learn the complexities of English usage. It should be noted that this type of language-arts instruction is beginning to give way to more integrated and phonics-based teaching. Whole language, however, was familiar to the students in the research group and therefore offered a amicable solution to developing alternate DBAE terminology.
Table 2
Alternate Terminology and Definitions for DBAE and Discipline Experts

<table>
<thead>
<tr>
<th>DBAE Term</th>
<th>Alternate Term</th>
<th>Alternate Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artist</td>
<td>Artist/Maker</td>
<td>Someone who gets an idea about making art then plans what to do, makes the art, and decides how good the finished work is</td>
</tr>
<tr>
<td>Production</td>
<td>Making Art</td>
<td>How art is made or what it is made from</td>
</tr>
<tr>
<td>Art Historian</td>
<td>Teller of true art stories</td>
<td>A person who reads about art and social studies and tells how time and people can change how art looks</td>
</tr>
<tr>
<td>Art History</td>
<td>True art stories/Art Social Studies</td>
<td>True stories about art from long ago, not long ago, and now</td>
</tr>
<tr>
<td>Art Critic</td>
<td>Explainer/Fact-Finder/Judge</td>
<td>Someone who describes a work of art, tells what it is about or how an artist made it, or decides if it is good</td>
</tr>
<tr>
<td>Art Criticism</td>
<td>Explaining/Fact-Finding/Judging</td>
<td>Finding facts in a work of art, what it is about, or deciding if it is good</td>
</tr>
<tr>
<td>Aesthetician</td>
<td>Opinion giver</td>
<td>A person who gives an opinion that can not be proven about if something is worthy of being called art, or beautiful, or important</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Opinions/Beliefs</td>
<td>An idea that nobody can prove about if something is worthy of being called art, or beautiful, or important</td>
</tr>
</tbody>
</table>
With the substitute words and definitions in place, children soon noted that the artist could fill the role of each expert, concurrently acting as critic, historian, and aesthetician while creating works of art. This insight promptly dismantled the obstacle of elitism by granting the artist ultimate rights not only to create works of art, but to criticize, historically document, and philosophize about the images and objects. Additionally, the students were less hesitant emphatically to pigeonhole each discipline or the jobs of individual discipline experts when all the art disciplines were embodied in one entity. This blurring of discipline boundaries freed the students to explore and discuss works of art on a level previously not experienced. The change in student writing is demonstrated in their art expressions prior and subsequent to this strategic adjustment to the study's approach to teaching through the foundational components of DBAE. This evidence is documented throughout the remainder of Chapter IV.

Pre- and Post-Cognitive and Affective Test Results

This study concerned itself most with changes upon language-deficient student's performances in written and oral expressions about works of art when DBAE methodology and the ACTS were used as intervention strategy in their language-arts intervention class. This chapter reports results of pre-tests and post-tests that were described in detail in Chapter III, Methodology. Samples of written expression and a limited amount of oral dialogue\(^\text{19}\) made during the program are included also.

\(^{19}\) Because these students generally exhibited short attention spans and were easily distracted by negligible external stimuli, the communications specialist eliminated use of an audio recorder after the first grading cycle. The recorder, she felt, caused students to focus upon the machine instead of their speech and thus hindered meaningful art conversation. After this time, transcription of oral dialogue was limited to field notes taken by the specialist and researcher.
Pre- and post-testing procedures included quantitative (i.e., TONI-2) and qualitative measure (i.e., interviews and field notes). These tests are summarized within the text and appendix in narrative, table, and chart format.

Results of TONI-2 Pre-Test

Before the beginning of this study, all 11 students in the select group met criteria for inclusion as prescribed by the Hurst-Euless-Bedford Independent School District. (See Chapter III, pages 25 - 26). Additionally, at the onset of the study a pre-test of non-verbal intelligence (TONI-2) was administered by the communications specialist. With a standard deviation of 7.8, pre-test scores approximated a normal distribution with a scant positive skew of 0.20. Slightly more than half of the pre-test scores fell above the mean score of 105 (n = 6; % = 55) while somewhat less than half fell below the mean score (n = 5; % = 45). (See Table 3).

Results of TONI-2 Post-Test

At the conclusion of the study a post-test of non-verbal intelligence was administered by the communications specialist to all 11 students in the study. The instrument used was the same as that employed for the pre-test of non-verbal intelligence. With a standard deviation of 8.14, post-test scores approximated a normal distribution with a minor positive skew of 0.39. Slightly more than half of the scores fell above the mean score of 107.5 (n = 7; % = 64) while fewer scores fell below the mean score (n = 4; % = 36). (See Table 3).
Table 3

Results of TONI-2 Pre- and Post Test Scores

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Score Pre</th>
<th>Score Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of scores</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Minimum score</td>
<td>95</td>
<td>97</td>
</tr>
<tr>
<td>Maximum score</td>
<td>119</td>
<td>121</td>
</tr>
<tr>
<td>Mean score</td>
<td>105</td>
<td>107.5</td>
</tr>
<tr>
<td>Median score</td>
<td>106</td>
<td>107</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>7.82</td>
<td>8.14</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.22</td>
<td>0.39</td>
</tr>
</tbody>
</table>

Change in TONI-2 Pre- and Post-Scores

Comparing TONI-2 pre- and post-test results indicated that most of the students in the study scored insignificantly higher on their non-verbal intelligence post-test (n = 9; % = 82) and the scores of two students remained the same (n = 2; % = 18). No students scored less on the post-test than the pre-test. Changes in scores between the pre- and post-tests ranged from a minimum of one point to a maximum of six points. The median change was 2.67 points with the mode change being two points. Utilizing a t-test because of the small number of scores, no significant difference was determined between the TONI-2 pre-test scores and the TONI-2 post-test scores. (See Table 4).
Table 4
Change in TONI-2 Pre- and Post-Test Scores

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observations</td>
<td>11</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>10</td>
</tr>
<tr>
<td>Pre-test sum of scores</td>
<td>1159</td>
</tr>
<tr>
<td>Post-test sum of scores</td>
<td>1183</td>
</tr>
<tr>
<td>t - value</td>
<td>-4.20*</td>
</tr>
<tr>
<td>t critical two-tail</td>
<td>2.22</td>
</tr>
</tbody>
</table>

* p < .05

Correlation of TONI-2 Pre-Test and Student Age

The TONI-2 pre-test score of each student in the study was compared with that student's age to determine if age corresponded to higher or lower scores on the non-verbal intelligence test. Application of the Pearson Product-Moment Correlation Coefficient (symbolized by $r$) was used to indicate the degree of relationship between the two variables. A low negative correlation\(^{20}\) existed between the pre-test score and the individual student's age ($r = -0.43$). This negative correlation is best demonstrated by observing the highest and lowest pre-test scores. The highest pre-test score ($s = 119$) was

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\(^{20}\) Hinkle (1994, p.119) states the rule of thumb for interpreting the size of a correlation coefficient indicates that if the size falls between -0.30 and -0.50 that a negative correlation exists.
scored by the youngest student (a = 10.4). The lowest pre-test score (s = 95) was recorded by two students: the next-to-oldest (a = 12.0) and the other from the median age (a = 11.4).

Scores in the upper percentile were greater than 108. These scores and the ages of students were: (s = 119; a = 10.4), (s = 114; a = 10.7), (s = 112; a = 11.5), (s = 108; a = 10.5 and 11.0). Scores in the lower percentile were less than 106. These scores and the ages of students who scored them were: (s =106; a = 12.4), (s = 103; a = 11.4), (s = 101; a = 10.6), (s = 98; a = 11.0), and (s = 95; a = 11.4 and 12.0). (See Table 5).

**Correlation of TONI-2 Post-Test and Student Age**

The TONI-2 post-test score of each student in the study was compared to that student's age to decide if age corresponded to higher or lower scores on the non-verbal intelligence test. In replication of analysis of the TONI-2 pre-test data, the Pearson Product-Moment Correlation Coefficient was applied to indicate the degree of relationship between ages and post-test scores. Similar to the TONI-2 pre-test, a low negative correlation existed between the two variables (r = -0.48). This negative correlation is demonstrated by observing the highest and lowest post-test scores that reflect similar results observed in the pre-test comparison. The highest post-test score (s = 121) was obtained by the youngest student (a = 11.3). The lowest post-test score (s = 97) was earned by the next-to-oldest student (a = 12.9).

Scores in the upper percentile were greater than 110. These scores and the ages of students who scored them were: (s = 121; a = 11.3), (s = 120; a = 11.6), (s = 112; a = 12.4), (s = 110; a = 11.9 and 11.4). Scores in the lower percentile were 107 or less. These scores and the ages of the students who scored them were: (s = 107; a = 13.3), (s =

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21 Age is reported in years and months.
105; a = 12.3), (s = 104; a = 11.6), (s = 99; a = 12.3), (s = 98; a = 11.4), and (s = 97; a = 12.9). (See Table 5).

Table 5

TONI-2 Pre- and Post-Test Scores and Student Ages at Time of Testing

<table>
<thead>
<tr>
<th>Student Identification Code</th>
<th>Age</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>D</td>
<td>12.4</td>
<td>13.3</td>
</tr>
<tr>
<td>H</td>
<td>12</td>
<td>12.9</td>
</tr>
<tr>
<td>F</td>
<td>11.5</td>
<td>12.4</td>
</tr>
<tr>
<td>I</td>
<td>11.4</td>
<td>12.3</td>
</tr>
<tr>
<td>G</td>
<td>11.4</td>
<td>12.3</td>
</tr>
<tr>
<td>E</td>
<td>11</td>
<td>11.9</td>
</tr>
<tr>
<td>K</td>
<td>11</td>
<td>11.9</td>
</tr>
<tr>
<td>A</td>
<td>10.7</td>
<td>11.6</td>
</tr>
<tr>
<td>B</td>
<td>10.6</td>
<td>11.5</td>
</tr>
<tr>
<td>J</td>
<td>10.5</td>
<td>11.4</td>
</tr>
<tr>
<td>C</td>
<td>10.4</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Pre-Written Expressions

Intrinsic to the Arts Cognitive Tracking System is written expressions about works of art. To enable tracking of student growth in visual arts understanding, each child in the
study was required during a beginning language-arts intervention class to observe and write about one work of art. A full color poster of Parson Weems' Fable was shown to the children. Instruction for this pre-writing activity was uncomplicated, directing children only to observe and write about the image for a total of 30 minutes. Supplemental background information about the artist and image was made available to the students, but they could not collaborate with neighbors or ask questions of the teacher once the writing was underway.

These initial written expressions did not vary significantly between students and further resounded the reasons the students were placed within this special remediation class. Short, disconnected sentences that reflected only superficial critical observations were typical of the pre-write expressions about Parson Weems' Fable. These statements rarely rose beyond description, but instead flatly portrayed the content of the image in list-like, austere format lacking analytical, interpretive, or judgmental comment. None of the writings indicated historical or production reference, nor was mention made about beauty or value of the work of art.

Selected at random are these two written samples reproduced without benefit of corrected spelling, grammar, and punctuation:

**Student C**

The boy knocked down the tree. The man in the red suit is pointing at the boy. The tree is dead. All of the people in the pitcher is rich. They has a big yard. They has a giant house. His face is really big and his body is really little. They all got a bow on theer heads. They all got white hair. They all wear black shoes. The star is above the window. The man is holding the later. They wear white shirts. They have three windows on the bottom. The man is holding the curtains. The man is wearing a hat. The fit is shining in theer faces.
Student H
There are lots of trees and bushes in the back, and grass. Threes a red curtain with a men with a green jacket on, and pointing at a tree. ALADY is picking the berries of the tree, and a men holding a latter up. A man is pointing at the kid for the axe to cut the tree. A star is on the side of the large house. The sky is black, and blue. The tree is covered in branches. The leaves is covered with berries. The filed is covered with grass. Threes a pipe in the front of the curtain. The tree is split at the bottom of the tree.

Post-Written Expressions
Students in the research project continued to write throughout the term of the study. The copious amount of writing that these students produced during this school year are sampled throughout this chapter. These sample writings, culminating with a post-written expression about Parson Weems' Fable, enable the reader to track student cognitive growth in both visual arts and language arts.

Pre-Oral Expressions
Similar to the written expression, a limited amount of oral expressions about works of art (in transcribed form) affords a measure of the effectiveness of the ACTS toward development of student's abilities to discuss images and objects. So that students could orally discuss Parson Weems' Fable without other students in the study overhearing (and therefore taking cues from each other), each child was provided 15 minutes of uninterrupted time in private discussion with the communications specialist. Following the same instructions as those given for observing and writing about the image, students looked at and talked about the painting.

The oral transcriptions did not vary significantly from student to student. Student dialogues characteristically were composed of sentences more lengthy than those documented in the pre-write portion of the study. Additionally, the spoken sentences
fluently flowed from one topic to the next. Akin to the pre-write expressions, discourse suggested that when these students talked about works of art that they spoke in terms that rarely exceeded categorizing or listing. No discerning information regarding the image or artist was recorded. No mention of value or beauty was noted.

Selected at random are these two abbreviated samples of transcribed oral expressions that have excluded (for ease of reading) extended silences and mispronounced words. Also excluded are teacher questions for prompting discussion.

Student D
It shows tons of background and different people doing different things at different times. It has a kid holding a hatchet and his dad wants it back. In the very background it shows people picking cherries off a cherry tree and the lady is holding a brown bucket in her hand and the little boy's dad has a red coat with gold buttons and a golden watch in his pocket and a black hat and green pants or tights that he is wearing. A man is holding back a curtain and pointing to a movie or a painting.

Student A
There is a little boy with an ax in his hand. The man is breaking a tree down and two other people are picking strawberries from a tree in the big backyard. The man by the curtain is pointing a finger at the man and little boy and there are a lot of trees in the backyard and a house and people standing on grass. The man that is pointing at the other man and the little boy is wearing a green coat. There is a star on the square house. The man that is trying to get the ax back from the little boy is almost tearing down the tree.

Post-oral expressions are not presented because, as mentioned in footnote 19 (p. 48), formal transcription was inappropriate to learning outcomes of this group of students.

Pre-and Post-Interviews for Affective Measure

All students (n = 11; % = 100) were interviewed individually when this study began and again at its conclusion to enable the tracking of affective changes in the students.
toward works of art when Discipline-Based Art Education methodology was incorporated into their language-arts intervention program. Both interviews provided students with opportunities to disclose if they liked to look at works of art and the name of a favorite artist. When shown 15 different images (see Appendix C), students were asked which image appealed most to them. Additionally, students were asked to select a work of art from the 15 images and discuss the image with critical, historical, philosophical, and production-based information. Finally, students were asked what type of art they preferred to make when they had free time and a choice of materials.

Before starting the study, a majority of students stated that they liked to look at works of art (n = 9; % = 82) while a small number (n = 2; % = 18) said that they did not like to look at works of art. At the conclusion of the study, a slightly larger number of students stated that they liked to look at works of art (n = 10; % = 91) while only one student stated a dislike for looking at works of art (n = 1; % = 09).

When asked to cite a favorite artist, almost half of the students in the initial interview did not respond (n = 5; % = 45), responded that they did not know the names of any artists, or that they could not think of an artist to mention. Of the remaining students who named a favorite artist (n = 6; % = 55), three artists and a cartoonist were specified: Van Gogh (n = 3; % = 27), Monet, da Vinci, and Jim Davis (n = 1 each; % = 09). In response to the post-interview, ten students provided the name of an artist (n = 10; % = 91) while one student said that he could not remember the names of any artists (n = 1; % = 09). Of those students who named a favorite artist, the most frequently cited was Frederic Remington (n = 3; % = 27). Deborah Butterfield, Vincent Van Gogh, and Benjamin West each were cited twice (n = 2; % = 18 each). Each of these artists, with the exception of Van Gogh, had been the topic of lessons during the study.
For questions number three through eight, 15 images in postcard format were used. Questions three and four used the cards arranged into three categories: representational art, non-objective art, and abstract art. These categories were evenly distributed into five groups so that students were shown three images at a time with one image from each category always included. When each group of images was displayed, students were asked to select a favorite and to state why the image was chosen. In both the pre-interview and the post-interview, representational and abstract art images rated the highest with these children. Non-objective images were cited only occasionally and never received a majority of positive responses.

Rating highest in the pre-interview were representational images in Groups I and V and abstract images in Groups II and IV. In Group III, a representational image and an abstract image received the same number of citations as favorite. These images were:

Group I, Power, an undated painting by Edward Bruce (n = 6; % = 55); Group II, River Bank in Springtime, 1887, Van Gogh (n = 6; % = 55); Group III, A Dash for the Timber, 1889, Remington and Hina, 1990-91, Butterfield (n = 5; % = 45 each); Group IV, Drawing Board with Onions, 1889, Van Gogh (n = 7; % = 64); and Group V, A Lady at the Paris Exposition, 1889, Luis Jimenez Aranda (n = 7; % = 64).

Rationales typically were superficial when students were asked to explain why these images were considered favorite. Most explanations characteristically encompassed only colors and lines or obvious content. For example, of the students who selected A Dash for the Timber as their favorite image in Group III, all cited the horse as an ideal subject and all but one student cited the blue sky as a preferred color.

Rating highest in the post-interview were representational images in Groups I, III, and V. Abstract images rated highest in Groups II and IV. Non-objective images, similar to the pre-interview response, did not receive a majority of citations in any category. The
images selected as favorite from each group in the post-interview showed little change from the pre-interview. The images most cited during the post-interview were: Group I, *Power* (*n* = 8; % = 73); Group II, *River Bank in Springtime* (*n* = 5; % = 45); Group III, *A Dash for the Timber* (*n* = 7; % = 64); Group IV, *Drawing Board with Onions* (*n* = 6; % = 55); and Group V, *A Lady at the Paris Exposition* (*n* = 5; % = 45).

Unlike the pre-interview, during the post-interview most students gave reasons for their selections based upon the images' content, craftsmanship, detail, worthiness by virtue of being made by a master artist, beauty or value to the culture. Additionally, students displayed little problem in explaining how the artists went about making the objects.

After observing and discussing individual groups of images, questions five through eight used all 15 images at once. The 15 cards were placed before the students and they were asked to select one favorite. In both the pre- and post-interviews, representational and abstract images again rated highest with these students. Remington's *A Dash for the Timber* maintained its position as the most preferred image throughout the duration of the study. This painting was cited favorite by the most students in the pre-interview (*n* = 3; % = 27) as well as in the post-interview (*n* = 5; % = 45). *Hina* and Albert Bierstadt's undated *Sunrise, Yosemite Valley* received the same number of favorite citations during the pre-interview (*n* = 2; % = 18 each), but the sculpture easily outdistanced the painting in the post-interview when Butterfield's work received more than a quarter of the votes for favorite (*n* = 4; % = 36).

During this portion of the pre-interview, children were asked to give as much information as they could about the work of art and its maker. None of the students gave a correct answer when asked to name the artist or the title of the piece. Several inappropriate guesses were recorded such as "Da Vinci made this horse sculpture" when referring to Butterfield's twentieth-century *Hina*. Additionally, students were asked if
their selected image was art. All students responded affirmatively but could not substantiate their replies. Typical responses included "because it is made into a postcard and that cost a lot of money" and "because the artist is famous."

Conversely, during the post-interview, students who selected *A Dash for the Timber* and *Hina* as their favorite image could correctly name the artist, approximate dates the works were made, and materials from which the works were created. Moreover, most of these students were able to articulate that these images could be considered works of art because of their craftsmanship and subject matter. Students who selected less familiar images as their favorite were unable to name the artist. Deriving clues from within the image, however, most could estimate an appropriate period from which the work of art was made. These students, as well, discussed craftsmanship and content as criteria for justification as a work of art.

Finally, the concluding question in both the pre- and post-interviews asked students to talk about the type of art that they like to make in their free time and when given a choice of media. Students were allowed to list more than one art activity that they enjoyed. Most students in the pre-interview (n = 7; % = 64) said that they enjoyed drawing and that they drew whenever they had an opportunity. An equal number of students cited working with clay as a favorite activity but lamented that they usually did not have clay to use. Painting with watercolor or tempera was listed as the second most popular art activity (n = 5; % = 45). Weaving and sewing was cited by a smaller number of students (n = 2; % = 18, while origami, cutting and pasting, model building, sculpting, and collage were cited once (n =1; % = 09 each).

Post-interview results indicated that drawing (n = 9; % = 82), painting (n = 8; % = 73), and working with clay (n =7; % = 64) remained the most popular ways that these students made art. Cutting and pasting declined in popularity and all other art activities remained
static with the pre-interview results. Results of the pre- and post-interviews are delineated, contrasted, and compared in Table 6.

Table 6

Pre- and Post-Interview for Affective Measure

<table>
<thead>
<tr>
<th>Question</th>
<th>Pre</th>
<th>Post</th>
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</thead>
<tbody>
<tr>
<td>N/%</td>
<td>N/%</td>
<td></td>
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</tbody>
</table>

Do you like to look at works of art?

- Yes                     | 9/82| 10/91|
- No                      | 2/18| 1/09 |

Who is your favorite artist?

- Do not know        | 5/45| 1/09 |
- Deborah Butterfield | 0/00| 2/18 |
- Thomas Cole         | 0/00| 1/09 |
- Jim Davis           | 1/09| 0/00 |
- Leonardo da Vinci   | 1/09| 0/00 |
- Claude Monet        | 1/09| 0/00 |
- Frederic Remington  | 0/00| 3/27 |
- Vincent van Gogh    | 3/27| 2/18 |
Table 6 continued

Pre- and Post-Interview for Affective Measure

<table>
<thead>
<tr>
<th>Question</th>
<th>Pre</th>
<th>Post</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>N/%</td>
<td>N/%</td>
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<tr>
<td>Which is your one favorite image in each of the five sets shown?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Group I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Power</em></td>
<td>6/55</td>
<td>8/73</td>
</tr>
<tr>
<td><em>Upsilon</em></td>
<td>3/27</td>
<td>2/18</td>
</tr>
<tr>
<td><em>New York</em></td>
<td>2/18</td>
<td>1/09</td>
</tr>
<tr>
<td><strong>Group II</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Sunrise, Yosemite Valley</em></td>
<td>4/36</td>
<td>4/36</td>
</tr>
<tr>
<td><em>Place de la Concorde</em></td>
<td>1/09</td>
<td>2/18</td>
</tr>
<tr>
<td><em>River Bank in Springtime</em></td>
<td>6/55</td>
<td>5/45</td>
</tr>
<tr>
<td><strong>Group III</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>A Dash for the Timber</em></td>
<td>5/45</td>
<td>7/64</td>
</tr>
<tr>
<td><em>Untitled</em></td>
<td>1/09</td>
<td>0/00</td>
</tr>
<tr>
<td><em>Hina</em></td>
<td>5/45</td>
<td>4/36</td>
</tr>
</tbody>
</table>
Table 6 continued

Pre- and Post-Interview for Affective Measure

<table>
<thead>
<tr>
<th>Question</th>
<th>Pre</th>
<th>Post</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>N/%</td>
<td>N/%</td>
</tr>
<tr>
<td><strong>Group IV</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrapped Oranges</td>
<td>4/36</td>
<td>4/36</td>
</tr>
<tr>
<td>Light Cloud, Dark Cloud</td>
<td>0/00</td>
<td>1/09</td>
</tr>
<tr>
<td>Drawing Board with Onions</td>
<td>7/64</td>
<td>6/55</td>
</tr>
<tr>
<td><strong>Group V</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Lady at the Paris Exposition</td>
<td>7/64</td>
<td>5/45</td>
</tr>
<tr>
<td>Woman</td>
<td>1/09</td>
<td>2/18</td>
</tr>
<tr>
<td>Lady in Blue</td>
<td>3/27</td>
<td>4/36</td>
</tr>
</tbody>
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Which is your favorite of all 15 pictures?

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
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</thead>
<tbody>
<tr>
<td>Power</td>
<td>0/00</td>
<td>0/00</td>
</tr>
<tr>
<td>Upsilon</td>
<td>1/09</td>
<td>0/00</td>
</tr>
<tr>
<td>New York</td>
<td>1/09</td>
<td>0/00</td>
</tr>
<tr>
<td>Sunrise, Yosemite Valley</td>
<td>2/18</td>
<td>1/09</td>
</tr>
<tr>
<td>Place de la Concorde</td>
<td>1/09</td>
<td>0/00</td>
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Table 6 continued

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<td>N/%</td>
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<tr>
<td>Which is your favorite of all 15 pictures?</td>
<td></td>
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<tr>
<td>River Bank in Springtime</td>
<td>0/00</td>
<td>1/09</td>
</tr>
<tr>
<td>A Dash for the Timber</td>
<td>3/27</td>
<td>5/45</td>
</tr>
<tr>
<td>Untitled</td>
<td>0/00</td>
<td>0/00</td>
</tr>
<tr>
<td>Hina</td>
<td>2/18</td>
<td>4/36</td>
</tr>
<tr>
<td>Wrapped Oranges</td>
<td>0/00</td>
<td>0/00</td>
</tr>
<tr>
<td>Light Cloud, Dark Cloud</td>
<td>0/00</td>
<td>0/00</td>
</tr>
<tr>
<td>Drawing Board with Onions</td>
<td>0/00</td>
<td>0/00</td>
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<td>A Lady at the Paris Exposition</td>
<td>1/09</td>
<td>0/00</td>
</tr>
<tr>
<td>Woman</td>
<td>0/00</td>
<td>0/00</td>
</tr>
<tr>
<td>Lady in Blue</td>
<td>0/00</td>
<td>0/00</td>
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Table 6 continued

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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/%</td>
<td>N/%</td>
</tr>
<tr>
<td>What type of art do you like to make?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td>7/64</td>
<td>7/64</td>
</tr>
<tr>
<td>Collage</td>
<td>1/09</td>
<td>1/09</td>
</tr>
<tr>
<td>Cutting/Pasting</td>
<td>1/09</td>
<td>0/00</td>
</tr>
<tr>
<td>Drawing</td>
<td>7/64</td>
<td>9/82</td>
</tr>
<tr>
<td>Model building</td>
<td>1/09</td>
<td>1/09</td>
</tr>
<tr>
<td>Origami</td>
<td>1/09</td>
<td>1/09</td>
</tr>
<tr>
<td>Painting</td>
<td>5/45</td>
<td>8/73</td>
</tr>
<tr>
<td>Sculpting</td>
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<td>3/27</td>
</tr>
<tr>
<td>Sewing</td>
<td>2/18</td>
<td>2/18</td>
</tr>
<tr>
<td>Weaving</td>
<td>2/18</td>
<td>2/18</td>
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Portfolio Content

Guidelines set forth in Chapter I provided direction for contents of each student's portfolio. Significant to these portfolio collections was the understanding by each student that discipline-based art strategies were to be infused into the language-arts remediation
program of which they were apart. After setting individual goals and concluding that every student (as well as each student's parent or guardian) wished to participate in the research, students then began to compile portfolios of their own art writing and art production samples. Writing samples began with the pre-writing activity and concluded with the post-writing activity. After the first writing activity, students began to use the color-coding process of the ACTS to document art understanding. Production activities began after the fifth lesson cycle and did not accompany each lesson. Each child was responsible throughout the study for maintaining individual portfolios.

The communications specialist maintained a portfolio of sorts as well. Within her portfolio was documentation of each child's progress both in written and oral expression. This documentation included TONI-2 pre- and post-tests, color-coded writing samples (both handwritten and computer generated), some audio recordings, and field notes.

The remainder of Chapter IV presents writing samples drawn from student portfolios and the teacher's files. Ten complete art lessons were taught during the school year. The first four samples quoted represent the earliest grading cycle (before refining teaching strategies) and are followed by samples taken from the second grading cycle, at mid-point in the study, and from the culminating activities. Additionally, at the close of the study, students were asked to discuss what they had learned about art or artists and what else they would like to know.

Lesson One: Art Production

After instruction about the role that an artist plays in creating works of art, students were shown Cole's Garden of Eden and given instruction about the creative problems and tasks associated with this particular image. Students were then asked to write about these problems and solutions associated with making the painting. Most written expression
produced from this activity corresponded with the exact format of the questions posed; more typically parroting the questions than delving into meaningful responses.

Comparable to the *Parson Weems' Fable* pre-writing activity, sentences for this first non-traditional language-arts lesson remained short, incomplete, and list-like. In conjunction to this exercise, children were introduced and instructed in the use of the ACTS to underline art production references in orange. Of the two random samples drawn and reproduced here, all words seemingly were indiscriminately underlined.

Student B
The problem is making a pitcher of a garden. It is the artist problem. The solution is to draw a pitcher of trees, plants and animals and paint it. An other solution is to take a pitcher with a camera and to cope it by drawing.

Student F
The problem is to figure out how to make a real looking picture of a place nobody saw. Thomas Cole had this problem. Thomas Cole went to lots of different places and drew many things like plants and trees and put them in one picture. This is a good solution.

Somewhat different from the written portion, collaborative discussion about this problem-solving activity stimulated a lively oral deliberation about identifying the artist's problems related to the subject matter of the painting. Students readily identified the difficulty of visually recording a biblical story. One student acknowledged, "nobody really knows what Eden looked like" while another student expanded upon this assumption by saying, "nobody can prove what it was like there." None of the children, however, questioned the sequence of events that Cole would have followed in planning and executing the complex composition. Several students proffered that Cole "probably thought a lot about what he was drawing", "tried to copy trees and stuff outside", and "worked a long time to make this picture." The notion that artists instigate original ideas and develop them in a variety of ways did not enter this discussion.
Lesson 2: Art History

Art history was introduced in the second non-traditional language arts intervention lesson. A poster of Butterfield’s sculpture, *Hina*, was used to prompt students to seek art historical references about the object and artist. For this lesson, children were reacquainted with the ACTS color-coding process and instructed to underline their art historical references in blue. Similar to previous writing activities, sentences generated by this assignment were meager in both substance and length; apparently not deviating from a prescribed format. In the two random samples selected, the first was written in a configuration of questions and answers with only the responses color-coded in blue. The second sample was color-coded erratically, with no clear indication of actual art historical understanding.

Student K
- Who made the art? Deborah Butterfield.
- What is it? A horse statue.
- When was it made? 1990
- Where was it made? In the United States
- Why was it made? Because she liked horses.
- Where is it now? In Texas

Student H
- Deborah Butterfield made this wood horse sculpture. She made it not long ago when she lived in Hawaii and liked driftwood on the beach. She made the texture out of metal and made it look like a wood horse too. I think she made the horse look like wood because she liked horses and wood and put them together. I do not now where this is now. It must be outside because there are trees in the picture with the horse. I like this horse.

Art historical discussion centered on information provided on the reverse side of a print of *Hina*. Students gathered around a work table and read aloud the art historical information. Extensions to the furnished information were not forthcoming. Expansion included only personal comments such as students acknowledging that they had or had not
visited the Modern Art Museum of Fort where the sculpture usually is displayed on the lawn.

Lesson 3: Art Criticism

Art critical inquiry was broached with Hofmann's *To Mis-Pax Vobiscum*. Reflective of previous written expressions, the student writing demonstrated vacuous statements presented in brief and occasionally incomplete sentences. Again the ACTS color-coding process was interjected with the intent of using red to underline art criticism references. Of the two writing samples reproduced here, neither exhibited discrimination in the color coding, with both completely underlined in red.

Student E

This is a picture of blocks of colors that are mostly red and blue and tan. It has some colors on top and some on bottom. There are Colors all over the place. I think it means that the artist liked colors and blocks. The title is wired and may be not be english because I do not no the words. The picture is wired like the title.

Student A

Hans Hofmann painted many shapes of colors. I see many colors. The shapes are geometric. The picture is brite. I like the picture because I like colors and geometric shapes. Hans Hofmann was a good artist. It is a painting about colors. Shapes are in the painting too. Some of the colors are bigger than other's. It goes side to side not up and down. I like the picture name because it is a made up name.

Discussion about this work of art generally reiterated written expressions, with dialogue infrequently surpassing trivial remarks about clearly observable facts. When urged to try to interpret the meaning of Hofmann's painting, students began to demonstrate misunderstanding and could not proceed beyond description and judgment-making. Typical of their responses to what the image is about was "shapes and colors" and "I like it because it is about colors." The first outward sign of bewilderment with the
DBAE approach began to be exhibited as students withdrew from the conversation and became easily distracted by the cassette recorder, hall noises, and other typical school disruptions.

**Lesson Four: Aesthetics**

Returning to Cole's *The Garden of Eden* for the aesthetics component of the inaugural non-traditional intervention lessons, students in the study were asked to observe again the image. For this observation, however, students were not to focus upon the artist's perspective but upon philosophical ideology. In tandem with this fourth activity, students were directed to use the ACTS to underline aesthetic references in green. Written expressions generated by this lesson seemed to fall into a now familiar rut of Spartan phrases and sentences that exhibited very little art comprehension.

**Student D**

This is a work of art because it was made by a artist named Thomas Cole. It is pretty because it is like a picture you take with a camera. It costs a lot of money. I like this painting.

**Student J**

I think this is art because it has trees, and animals, and people, and water, and a mountain. There is all sorts of things to look at. I think it is worth a lot of money. It is in a museum and I like it alot.

Oral dialogue, or the lack of oral dialogue, plainly exhibited a lack of aesthetic understanding. Similarly echoing the written expressions, the scant oral discussion was decidedly art critical in nature. More significant to the study, however, was the withdrawal of several students from conversation and the mumbled protests about art not being much fun. Revised teaching strategies, as delineated in the introductory remarks of this chapter, were explored and implemented at this judicious point. This also marked the conclusion of the first grading cycle.
Non-Traditional Intervention after Change in Teaching Approach

DBAE, with few exceptions, is an approach to teaching rather than a body of knowledge to be taught. Recognizing and synthesizing that DBAE theory and methodology are distinct entities directed the prudent retooling of DBAE teaching strategies employed within the context of this research project. That is, while the communications specialist and the researcher both felt a need for students to be cognizant of approaching works of art from four separate but overlapping ideologies; the need to maintain the sanctioned labels became unnecessary. Students were prompted at this juncture to develop their own DBAE vocabulary and definitions.

The first non-traditional intervention lesson after this modification in instructional procedures reflected immediate positive changes in student attitudes toward exploring works of art and in participation of the research program itself. Moreover, written and oral expression demonstrated a marked improvement.

First Lesson after Implementation of the Revised Teaching Strategy

Following the group's development of alternate DBAE terms and definitions, the first non-traditional intervention lesson revolved around Frederic Remington's 1889 painting, *A Dash for the Timber*. A large reproduction of this work of art was placed on the wall near a poster of the proxy DBAE vocabulary. Students were to be alert to any possible errors in their DBAE terminology as they attempted to apply the concepts to works of art.

The objective for this intervention lesson was to ascertain fact or opinion within a work of art. To the left of the image was a poster marked "FACT," to the right of the image was a poster marked "OPINION." Students were directed to write on index cards one

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22 One exception to this statement is the situation wherein adult learners (e.g., preservice students and inservice teachers) are trained in the use of DBAE strategies, although they, too, can benefit from making the language their own.
complete sentence about the image. Statements then were read aloud and posted under either "fact" or "opinion" with each student explaining why the statement fit the designated category. Sentences were generally art critical or art historical in content and well written. Oral explanations sometimes sparked debate, but usually were cautiously worded. Two samples of these statements, the student's classification as fact or opinion, and the communications specialist's notes about discussion are cited here:

Student G
The cowboys are riding horses and some of them are shooting guns. Fact

"This is a fact because you can tell by the way the men are dressed that they are cowboys. They are also riding horses that look scared because they are being chased and the cowboys are shooting guns. You know this is a fact about the picture because that is what the artist painted."

Student C
This is a painting by Frederic Remington. Fact

"This is definitely a fact because it says on the poster that Frederic Remington made this picture."

Students were asked to repeat this procedure after the first round of writing, classifying, and discussing. During the second round an additional objective required that students should attempt to write a statement that nobody else in the group would write. Statements tended to suggest close observation of the image, with most continuing to be art critical or art historical in content but with a few production references.

Student I
This painting is made from oil paint and has a blue sky. Fact

"You know this is a painting because it looks like a painting, not a real picture like you take with a camera. If you look close you can see where he used a paintbrush to paint the picture. It says on the poster that he used oil paint. I think that is like tempera paint but only shiny and costs more. You can tell the sky is blue because he painted it blue. It is blue in the picture like a real sky outside."
Student B
I like this painting because it has a black horse in it. Opinion and Fact

"The first part is an opinion because it is what I like and the other part is a fact because there is a black horse in the picture. It is right here."

With 22 index cards categorized as either fact or opinion, students were then asked to refer to their DBAE vocabulary and collaboratively to sort the statements as either (1) making art, (2) art social studies, (3) explaining about the work of art, or (4) art beliefs that can not be proven. This classificatory puzzle stimulated cooperative thinking and action. When the communications specialist asked what categories had the most facts, it became apparent to the students that most of their statements were classified as either production, art history, and art criticism. The aesthetics category had one entry written by Student C: "This is a beautiful oil painting. -- Opinion." Some students, however, wished also to categorize Student B's statement as aesthetics. This prompted discussion that helped to clarify the distinction between criticism and aesthetics.

The communications specialist encouraged students to contrast and compare the statement written by Student B with the statement written by Student C. Discussion pointed to the notion that liking something (as in the former statement) is an opinion and hence could be a belief that cannot be proven. Prodded to examine the statements further, it was then determined that Student B was judging the work of art on the merits of its subject matter (consequently, facts were found within the work of art to prove the statement) while Student C was making a value statement not necessarily founded upon facts located within the image.

The concluding activity for this multi-day lesson required that students use their statement cards as resources to write a collaborative article about A Dash for the Timber. This article is reproduced here in its original draft without benefit of correction.
It is a fact that Fredric Remington painted *A Dash for the Timbre* in 1889. He was an American artist who lived in the United States and liked to paint pictures about horses in the west. It is an oil painting that has cowboys riding horses and shooting guns. Indians are after them. They are all going fast to the woods. It makes us feel worried that the cowboys will not be safe. Are there woods in front of them to? It makes us wander why the Indians are chasing the cowboys. Did the cowboys do something bad. Are the Indians being bad?

Our opinion is that we like this picture because it has horses and cowboys. It has a blue sky and trees and a log. It looks real. It has dust. Some of the horses are going wild. Look at the whit one that is shot. The black one always looks at you. We think that this is art because not everyone could make a picture like it and it is in a museum where people can see it.

Fredric Remington was a good artist who painted many pictures like this one.

After collaboratively correcting grammatical errors, the ACTS color-coding process then was introduced for application to the written expression. Since previously each of the original statements had been categorized as essentially one of the art disciplines, transferring this knowledge to the collaborative writing was a reasonable, sequential step. Deciding between critical and aesthetic statements posed the most problems associated with the color-coding of this activity. Another question surfaced when statements held more than one art concept. Group discussion moderated by the communications specialist determined both solutions:

- That beliefs about art were molded by the worthiness of an object and
- That more than one discipline could be represented and underlined within one statement.²³

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²³ This lesson, developed and documented collaboratively by the communications specialist and the researcher, has been accepted for publication in *School Arts.*
Midpoint in the School Year

Subsequent to empowering the students with responsibility for their own learning by developing DBAE vocabulary that was meaningful to them, the communications specialist watched an enthusiastic educational conversion taking place within the group. When non-traditional lessons were introduced they were met by most of the students with excitement and willingness to work. Opposing reactions seemed to precede most traditional lessons, she reported. Some of the students in the study hesitated at attending class, seemed disinterested in the topics, or exhibited behavior problems during class time. The latent protest of the students did not go unheeded by the communications specialist who sympathized and agreed with her students. Because the non-traditional lessons, in her opinion, had been so successful in motivating these students to address their language-arts challenges the communications specialist felt it was not in the best interest of the students to continue with traditional lessons. Beginning at mid-term (i.e., the fourth grading cycle) and continuing throughout the remainder of the school year, these students were immersed in a language-arts intervention program that used DBAE as its exclusive framework. Although this study originally proposed to contrast and compare traditional language-arts intervention with non-traditional intervention, the communications specialist's decision to delete the traditional approach was not challenged. The learning outcomes of the students were deemed more important than continuing with what the communications specialist considered a "dead method of teaching."

Nineteenth Week

At the nineteenth week the study reached its midpoint. Observing artworks from the perspective of each of the art disciplines or discipline experts appeared to affect the
students' written and spoken discourse in a positive way. Most of the students demonstrated improved competencies to:

- Write complete sentences,
- Determine main idea,
- Differentiate between fact and opinion,
- Contrast and compare, and
- Sequence events.

Moreover, self-confidence levels of many of the children seemed to change as ability levels grew. Several students began to formulate the idea of creating a gallery of the art reproductions they had been studying. Their mainstream classmates would be invited to the exhibition and the students in the study would act as docents. This idea became a motivation to encourage these students to continue improving in their language-arts proficiency and visual-arts observational and interpretative skills.

**Midpoint Non-Traditional Intervention Activity**

The results from a complex, two-week lesson taught at midpoint in the study exemplifies the educational strides the students had made during the first semester. *The Battle of La Hogue*, 1778, by American artist Benjamin West and *Wellington's Victory*, 1813, by German composer Ludwig van Beethoven served as the dual focus of this extended lesson. Each work was introduced individually, but both were taught with similar procedures and identical assignments. The capstone of these related activities brought the two works of art together for parallel analysis.

The West painting was displayed before the students as the communications specialist read information to the group about the artist and the image. Four index cards were then distributed to each student. One complete sentence about the artist or the art was to be
written on each card. One of the sentences was to tell about the time or action in the narrative image. When all students had written four sentences, they exchanged with a neighbor, and read the sentences aloud to determine if the sentences were complete, grammatically correct, and to categorize each as essentially one art discipline. Most sentences produced from these activities were lengthier than those written earlier in the school year. Content of the sentences indicated that most students were applying DBAE foundations to decipher works of art. Moreover, many of the students recognized certain statements as essentially one of the art disciplines. Sample sentences (prior to corrections) are listed here:

Student K
The Battle of La Hogue was an oil painting by Benjamin West.
There are swords and guns and music.
The people are in dressy clothes instead of soldier clothes.
He was 12 when Ben West became a famous painter.

Student F
The sun is on people in the front of the boat.
A man is saving a girl from drowning.
There is a boiled man holding a sword.
The king mad the admiral have a battle so that Benjamin West could paint it.

Students reviewed their corrected statements and then collaboratively arranged the sentences into a sequence of events. Sentences that did not relate to time or sequence of events in the image were temporarily put aside. The 11 remaining sentences were plotted to place the depicted scene into a sequential order that made sense. Students later used a computer to compile the sentences about The Battle of La Hogue into a collaborative paragraph that was cooperatively color-coded using the ACTS. Most underlining was red, indicating that the students correctly identified their sequenced writing as predominately art critical in nature.
In near replication of the West lesson, students were read biographical information about Beethoven and historical information about Wellington's Victory. After listening to the musical piece, students wrote four sentences about the work of art or artist. Similar to those produced about The Battle of La Hogue, these sentences generally were of more substantial content than those that had been written earlier in the school year. Additionally, it appeared that the students had synthesized DBAE tactics well enough to begin to apply those strategies to other types of artwork. Sample sentences (without corrections) follow:

Student B
You can tell when the battle starts because the music gets loud.
Canons and guns are used in the music.
Beethoven got def before he was too old.
It is a battle between the French and English.

Student D
It sounds like men are fighting and the guns can be heard from different places.
Beethoven learned to play the piano when he was a little boy.
I wonder how they shot the guns inside a music hall.
Everybody liked the music.

Following the collaborative exchange and correction of the sentences, these statements were sequenced in such a way as to aid with interpretation of the music. The sequenced statements were organized into a paragraph about Wellington's Victory and color-coded with the ACTS. Again, students correctly identified their sequenced writing as prevalently art critical.

After studying the sequence of events in the visual image and musical piece, students were given an opportunity to approach the two works simultaneously. Gathered around a study table and using the color-coded statements generated during the introductory activities, students were asked to place the statements that uniquely applied to Benjamin West or The Battle of La Hogue near that image. All statements that uniquely applied to
Ludwig van Beethoven or *Wellington's Victory* were to be similarly placed near a portrait of the composer. Statements that applied to both artists or artworks were placed in a separate area. Discussion involved the differences and similarities of the two artists and the works. Most students thought the painting and the musical piece were more alike than different. Prompted by the communications specialist to question if both works were always considered art or if they are considered art now, students gave indication of their slight aesthetic understanding when they responded that the works were created by well-known artists; therefore, both *The Battle of La Hogue* and *Wellington's Victory* were art.

After the discussion, students were divided into three groups for a collaborative writing assignment. One group used statements from the index cards to write a paragraph about West and his painting. Another group used statements to write a paragraph about Beethoven and his music. A third group used the combined statements to write about the similarities of the artists and their works. The completed paragraphs were similar in structure and content to the original statements written on the index cards.

**Post-Written and Oral Expressions: Culminating Activities of the Final Grading Cycle**

During the final grading cycle, students were given permission by the campus principal to organize an art gallery in a vacant classroom at the school. Given the choice of working independently or in teams of no more than three, eight students chose to work in pairs while the remainder worked as a triad. Each group selected a designated leader and was asked to select an 18" x 24" art image\(^\text{24}\) to research, write about, and orally present to their classmates. Additionally, these students were required to develop a meaningful

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\(^{24}\) Children were limited to selection from posters in the *Take-5 series* and the *ArtLinks* collection. *Take-5* is a commercially produced poster set while *ArtLinks* is a poster set produced and distributed on a limited basis through the North Texas Institute for Educators on the Visual Arts and area art museums.
production activity that would demonstrate the main idea of the image chosen. Four of the images chosen for research were paintings while one was a collage. Reflecting preferences documented by the Interview for Affective Measure, three of the images were representational and two were abstract. All works were created by men, the earliest in 1594 - 95, the most recent in 1986. The images selected for research and listed here in chronological order were:

- *The Cardsharps*, a representational oil painting by Michelangelo de Caravaggio, Italian, 1594 - 95;
- *On the Europe Bridge*, a representational oil painting by Gustave Caillebotte, French, 1876 - 77;
- *The Horse Thieves*, a representational oil painting by Charles Russell, American, 1901;
- *Pittsburgh Memories*, an abstract collage by Romare Bearden, American, 1984; and

At this late stage of the study, students had demonstrated their general knowledge of approaching a work of art from the four disciplines of art. They had not, however, been afforded the occasion to select a work of art, research the piece and artist, write about the information, and orally present it. A sample format was designed to facilitate collection of art data and to provide an outline for writing an article. (See Appendix F). Students used the ACTS to color-code the model's inquiries by discipline to assist with visualizing a balanced writing activity.

Final drafts of the each group's art research indicated that most of the art information was correct but that students sometimes had difficulty departing from the research model. Most writing suggested that students had a reluctance to deviate from the outline's

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25 An article about this culminating activity has been accepted for publication in *Arts and Activities*. 
sequence. Many of the sentences mimicked the model’s prompts; most commonly rephrasing a question as a statement. This, however, was a positive change for these students who at the beginning of the year usually did not write complete sentences. Application of the ACTS to the students' writings paralleled the model. Consequently, these final student writings were more balanced in their address than those produced throughout the year.

After the writings were complete, all the art images were observed together so that a theme could be chosen for the exhibition. The theme decided upon was *Works of Art that Tell a Story*. The works of art were arranged chronologically in the campus gallery so that a timeline would reflect changes in story telling through the centuries. Student writings were placed on the wall next to the appropriate image and used as gallery text. Student-created art also was placed next to the art posters to provide auxiliary information about the meaning of the original artwork. The students' art production was generally successful and widely varied. *The Cardsharps* was explored with drawings that depicted the consequences of cheating. These students also presented a brief original play about the consequences of cheating at a game. *On the Europe Bridge* was accompanied by a three-dimensional bridge that was designed to hold transportation vehicles. *The Horse Thieves* was further examined with a diorama that depicted how the scene would be different if Russell had created it in 1996. *Pittsburgh Memories* was augmented by the students creating a mural of their neighborhood that simultaneously depicted both exterior and interior views of the same object. *Night Heron* was contemplated with the creation of a three-dimensional bird made from found objects.

After the exhibition was installed, each team continued to study their writings and practiced standing in front of their chosen image presenting the information to each other.
When the teams felt sufficiently prepared, their mainstream classmates were invited to the gallery for a tour in which the students in the study acted as docents. During the presentation, students read their research to their classmates. At the conclusion of each presentation, classmates were given an opportunity to ask additional questions about the works of art from the "experts." Responses to questions such as "Where is the real painting?" and "How big is the real picture?" were prompt and accurate, indicating that students had not only researched their topics but had learned the material. If an "expert" did not know an answer, the planned response was "I am not certain about that. I will find out for you." Each team received several of these unanswered questions that became additional research fodder for this elongated activity.

The progress of one group of students is presented as evidence to illustrate best how this prolonged interdisciplinary activity developed and concluded. Submitted here is this group's preparatory material (i.e., notes generated from the sample research format), one practice writing (i.e., what the students term as a "sloppy copy"), and their conclusive essay about Bates' *Night Heron*. All notes and writings are reproduced as they were extracted from the students' collaborative portfolio.

**Notes for The Night Heron**

by (names of students)

1. The artist is David Bates born in Dalas, Tex in 1952 and NOT DEAD YET
2. He is very tall, likes fishing and Grasy Lake
3. The painting is *The Night Heron* made in 1986 it is a BIG painting on canvas from oil and thick paint.
4. A big rectangle bird is in the middle of a swamp with a fish in its mouth and a red eye that is scary. It looks like a cool swamp. The plants are big and green.
5. It is about a bird living in the swamp.

6. The artist drew the picture then used paint to color it. He might have used brushes or sticks to draw in the paint.

7. This is a work of art because lots of people see it and like it a lot.

8. My friends would like this but people someplace might not like this because they would not know what it was about

From the above notes and recurrent reading of information about the art and artist, the collaborative group wrote their first draft of their research project. This first draft is reproduced here:

**Sloppy Copy for The Night Heron**
by (names of students)

Imagine you're in a swamp called Grassy Lake in Arkansas. It's in the middle of the night you see shadows moving in the darkness. Strange noises all around you. You see the red eye of a night heron glowing as he eats a fish!

David Bates painted The Night Heron to tell about Grassy Lake. When David Bates made this night heron he made the heron HUGE! That is because it is important part. The painting is big too. He used paints and brushes and knives. David Bates' activities is hunting, fishing trips, state fair, flea markets, honky-tonks and barbeque stands. David Bates was born in Texas in 1952. He is not dead yet! He has been a teacher and he paints. He loves Grassy Lake. A lot of people see this picture and like it. Some people might not understand why it is art.

We will write a poem and make a bird out of trash.

The initial research, pre-writing activity, and first draft writing led into subsequent writing revisions. After color-coding the sloppy copy with the ACTS, students rewrote the essay to include more information about the art and artist while demonstrating a better balance of the art disciplines. The following is a facsimile of the third revision:
Night Heron

By (names of students)

Imagine that you are in a swamp called Grassy Lake in Arkansas. It is in the middle of the night. You see shadows moving in the darkness. Strange noises are all around you. You see the red eye of a night heron glowing as he eats a fish whose scales glisten in the moonlight!

David Bates painted Night Heron to tell about Grassy Lake. When David Bates made this night heron he made the night heron huge because it is the most important part of the picture. David Bates' favorite things are hunting, fishing trips, and state fairs.

David Bates was born in Dallas in 1952. HE HAS NOT DIED YET! He still lives in Dallas. He is a painter and a teacher. David Bates thinks that Grassy Lake is the most beautiful place he ever saw.

Night Heron is a oil painting on canvas and it is a big painting. It is at the Modern Art Museum in Fort Worth, Texas. He used pencil to draw it, and paint and brushes and knives to paint it. It is about wild life and how a bird catches its food. It is bright white and black so it stands out from the green plants. An unhappy dead fish is in the beak.

This is a work of art because it is in a museum. It is worth a lot of money and a lot of people have seen it and they like it.

Similar to the first draft, this third draft was color-coded and evaluated for balance of art content using the ACTS.

A fourth and final revision based upon the third draft was created on a computer, corrected, color-coded with the ACTS, evaluated, and then prepared for oral and written presentation at the art exhibition. A total of four weeks elapsed from the beginning to the end of this assignment. The final research essay is replicated here in its corrected version:
David Bates' Outrageous Swamp Bird

David Bates was born in Dallas in 1952. He hasn't died yet! He still lives in Dallas and he has been an art teacher at Eastfield College. He likes to hunt and go on fishing trips. He also likes the State Fair, flea markets, honky-tonks, and barbecue stands and he has used these places in his pictures. The artist thought that Grassy Lake was the most beautiful place he had ever seen and he decided he wanted to make the painting about the lake and the animals there.

Night Heron is an oil painting that is made on canvas. It is a big painting about 8 feet by 6 and one half feet in size. He makes everything HUGE! It was made in 1986. It was bought by the Modern Art Museum of Fort Worth. The work of art was made with a pencil to draw it, and paint brushes and oil paints and pallet knives and a big piece of canvas. The paint is very thick. It is about wild life and how a bird catches its food from the swampy water. The bird is the most important part of the picture. It is large and made like a rectangle. It is bright white and black so that it stands out from the green plants. An unhappy fish is in its beak.

This is a work of art because it is in a museum. It is worth a lot of money and a lot of people have seen it and they like it. When many people see a painting and say that they like it then it must be worthy and so it is art for our country. People from other places might not think this was art because they might not have seen the stuff in the picture before and would not understand it.

A Poem about Night Heron

BIRD!
You are so BIG!!

You look like a balloon.
That makes me want to hug you,
BIRD!
Post-Written Expressions

After the concluding activity, students met for a final time with the communications specialist to replicate the pre-writing activity from the first stages of the study. Students were provided thirty uninterrupted minutes again to observe and independently write about Grant Wood's painting of Parson Weems' Fable. Duplicating the pre-writing activity, students were given access to supplemental information but were not allowed to communicate with the teacher or each other after writing began.

These post-written expressions, similar to the pre-written expressions, did not vary significantly from student to student. This lack of difference, however, was viewed as a positive change rather than negative. All writings demonstrated improved abilities to write about works of art using sentences with better formal structure, greater length, and more complex vocabulary. Although writings typically favored descriptive approaches, these descriptions were more analytical and interpretative in nature. Additionally, most writings included information about the artist and how the work of art was created. A few writers made assertions about the worthiness of the image to be art.

The writings selected for reproduction here were not randomly chosen but are those produced by the same students whose pre-written expressions are included on pages 54 and 55. These post-written expressions have been purposefully selected so that the reader may compare the cognitive growth of two specific students who participated in the research. The writings were created on computers and are reproduced here without benefit of correction.

**Student C**

This painting was made with oil paints on canvas. Right now this painting is at the Amon Carter Museum in Fort Worth, Texas. An opinion about this painting is that it is art. Not everything is art tho. A fact about this painting is that it was made by Grant Wood and it is called Parson Weems. At first you have to think that Grant Wood
planned how he was going to make this painting. Second he might've got his materials after he made a list of everything. Then, he had to paint it. Last of all, he probly sold it.

To me, this is a great work of art!!! As you can see the sky is half cloudy because George Washington is cutting down the cherry tree and his dad is probly mad at him. The man holding back the curtain makes you look at what is going on. There is lots of repeated things like cherries and buttons and lolypop trees.

**Student H**

The title of this painting is *Parson Weems' Fable* and Grant Wood used a picture of a family in Washington helping another gather cherries. There is a forest behind the house and the people are standing in front of the house because they are showing action. The painting shows people enjoying there work at home and in a big forest. The artist used dark colors and some bright colors in the painting. It looks like he might of saw different kinds of old pictures and thought of making something special for his family to keep. *Parson Weems' Fable* uses OIL on canvas paints in this picture. I think Grant Wood did a very good job on this painting of a family and to the little slaves helping them. Grant Wood made this picture in 1939 and he was born in 1861 and died in 1942 so he died soon after he made the painting. *Parson Weem's Fable* is hanging in the Amon Carter Museum and Grant Wood even made the frame so it would match the star on the big house.

**Closure to the Study**

After all post-tests, writing, and speaking assignments were concluded, a casual interchange between the students and the researcher involved these two questions:

- What did you learn in speech class about art and artists?
- What else would you like to know about art and artists?

The final debriefing provided students with a closing opportunity to discuss their personal feelings about being a part of the study. Responses were varied and wide-ranged, with generally attentive replies. Gathered around the language-arts work table, students were at ease in the familiar environment and spoke candidly about the preceding
year. One student began the conversation with the assertion that he liked "writing stuff about art pictures better" than the way the group had previously approached their language-arts problems because he "got to know things other kids didn't get to know... (such as) stories about what artists did when they were kids." Most other children nodded in agreement, interjected similar comments, or gave specific information. One student said that he "liked finding out about how Benjamin West got to have a battle made just for him so he could paint a picture for a king." Another stated that she "liked learning about sculpture... (such as how Deborah Butterfield) made *Hina*." Students replied without indecision when asked to disclose one thing they learned about art or artists during the year. Most responses related to recent assignments as these samples indicate:

"Romare Bearden used photographs to make collages."

"Charlie Russell liked to draw little pictures on the letters he wrote. He also liked Indians a lot and used lots of details that were real."

"The guy who painted *The Europe Bridge* was rich and most artists are poor. He bought the poor artists' pictures so that they would not starve."

A few students gave broader statements about what they had learned. One such statement was made by a girl who said that she "learned how to figure out what pictures are about" while another girl added that she realized "pictures usually tell you something. You just have to know how to look at it."

Asked what else they would like to know about art and artists, these students revealed their concrete learning style with a reluctance to speculate an answer. After a few moments of silence, one student responded that she was curious "how artists get to be famous in the first place." This prompted another student to ponder "how you could get a museum to put your pictures up." In apt conclusion to the study, one boy asked the researcher "if someday my art gets in a museum will kids in school learn about me?"
Overview: Meeting the Needs of the Educational Future

Hausman (1996, p. 73), in an invitation for creating a visual arts research agenda, reiterates his earlier statement that The Goals 2000: Educate America Act of 1993 acknowledges "...the arts are as valuable and important to public education as English, mathematics, history, geography, science, and foreign language" but adds that forms of evaluation and assessment in the arts have yet to present a strategy that meets variable and changing educational needs. The National Assessment of Educational Progress (NAEP), a project undertaken by the National Center for Educational Statistics at the behest of the United States congress, Hausman says, proffers a framework for arts educators to follow for future assessment procedures.

NAEP goals closely parallel much of what this study has striven to accomplish. Development and implementation of the ACTS, similar to NAEP goals, has provided students with opportunities to create in the arts as well as to perform, interpret, and respond to personal creative works and the creative works of others. These correlated goals state that the arts should:

- Affirm ways of knowing,
- Endorse that there are different forms of knowledge,
- Assess knowledge, abilities, and performance in a variety of ways,
- Go beyond quantitative research documentation to include qualitative (or critical) responses,
• Communicate research findings to a variety of audiences inclusive of parents and administrators in addition to professionals in the field, and
• Show a multifarious (i.e., postmodern) intent of arts education that is non-exclusionary.

As a method of instructional feedback and as an instrument for evaluation of understanding in the arts, the ACTS acknowledges that all students learn, but that not all students learn in identical modes. For instance, while some language-challenged children in this study demonstrated more growth in their written expressions about works of art (suggesting a tendency to be visual learners), others developed stronger abilities to speak about works of art (suggesting a tendency to be aural learners). Because of this difference, the ACTS offers a different approach to evaluation that encompasses demonstration of skills along with review and revision in both written and oral discourse about works of art.

Assessment of knowledge, ability, and performance using the ACTS, in tandem with portfolio collection, becomes a multifaceted byproduct more than a singularly configured conclusion. That is, assessment of learning does not depend upon an isolated response to a secluded incident; rather, assessment with this method becomes a portion of the learning process itself. By allowing for formative revision before summative appraisal students are empowered to learn through a process that encourages building upon prior knowledge and connecting cognition to real life experiences. In analogy, visual arts cognition provides the trunk upon which branches of other learning grow, intertwine, and mesh.

Conclusions

A generally successful implementation of a DBAE program as a framework for language-arts intervention was documented by this study. Students' pre- and post-test
scores of non-verbal intelligence remained virtually unchanged, but measures of other
cognition and affective behaviors evidenced growth. The effectiveness of the ACTS was
demed positive when color-coded writings were sequentially extracted from portfolios
and most of the later writings indicated well-balanced art observations that generally
included reference to some or all of the four disciplines of art. Many of the expressions
were couched in better language-arts skills such as improved abilities to write topic
sentences, to differentiate between fact and opinion, and to identify main ideas.

Questions posed in Chapter I were deliberated throughout the study and conclusions
were drawn at the study's completion. Inferences drawn from the answers to these
questions were derived from quantitative and qualitative data collected during the
research.

**Question 1**

Can learning about works of art through DBAE strategy, in particular
using the methodology of art discipline practitioners, affect art
understandings of certain elementary-age students as distinguished
in individual students' written and oral narratives?

Learning about art and artists through methodologies similar to those used by
aestheticians, artists, art critics, and art historians had an overall positive consequence on
the art understandings of the students in the research group. This growth in art
understanding is readily documented in both written and oral expressions produced by
these students. Initial results generated by the activities of the first grading cycle indicate
lack of art comprehension. After empowering students to develop their own discipline-
based art vocabulary and definitions, however, subsequent writing and discussion
demonstrated stronger art cognition. One explanation for this growth in art understanding
is that these students learned to look at and interpret art objects from four distinct, but overlapping viewpoints. Revisiting artists and works of art using the methods of art discipline experts required students to observe and interpret art images with four diverse strategies. Many language-arts educators accept as doctrine that a word or concept does not belong to a learner until the word or concept has been used at least twenty or more times. Perhaps a similar maxim extends to art learning. Multiple visits to the same artist and object seem to assist with art cognition. The Pre- and Post-Interviews for Affective Measure substantiate this conclusion.

One of the most obvious shifts noted between the pre- and post-interviews was the response to the inquiry of “who is your favorite artist?” Before implementation of DBAE as a language-arts intervention tool, almost half of the children (45%) responded that they did not know or could not name an artist. After implementation this number dropped to 9%. Only well-known artists (e.g., Monet and Van Gogh) were cited by students during the pre-interview while less well-known artists (e.g., Butterfield and West) were cited during the post-interview. Although this finding does not speak to the depth of art understanding, it nonetheless suggests that grounding classroom studies meaningfully upon works of art assists students with learning and retaining knowledge about artists. Additionally, this finding implies that these students were willing to expand their personal definition of "artist" to include more than those names most typically associated with art.

An underlying but significant implication of this before and after finding is that these students came to the research without prior substantial knowledge about a variety of artists; thereby suggesting that the visual-arts program on their campus did not adequately address art history. Conversely, throughout the study, these students demonstrated that they were familiar with a wide range of production procedures as well as the elements of art and principles of design found within images; hence suggesting that the visual-arts
program was fundamentally oriented towards studio activities and art criticism. Other portions of the interviews support this assumption also. Before implementing DBAE in the language-arts intervention program, students demonstrated difficulties in expressing why images or objects could or should be classified as works of art. While aesthetics continued to be the most troublesome aspect of their studies, at the close of the school year the students in the research group were beginning to address philosophical art issues with a greater degree of confidence. A comparison of student's oral art discussions and written art expressions prior to and after the study in association with their essentially studio and criticism-based art program suggests that DBAE has a positive impact on art understandings. Providing a wider foundation upon which to explore artists and works of art seems to contribute to improved art comprehension.

Similar to oral responses generated by the Interviews for Affective Measure, the students' pre- and post-written expressions offer a brilliant contrast of change between writings produced in September of 1995 and those produced in May of 1996. Whereas first writings without benefit of knowledge about art disciplines or methodologies of art discipline experts indicated short sentences virtually void of art cognition, final writings reflecting a DBAE approach denoted expanded sentences that revealed thoughtful observation and deeper art understanding. Similar dynamics as those cited for the positive changes in oral discourse seem to correspondingly apply to written expressions. Repeated exposure over time to the same artist or work of art in conjunction to procedures espoused by art discipline experts seems to strengthen abilities to write meaningfully about art.
Question 2

Can the ACTS accurately reflect change or growth in individual student's art cognition as well as cognition in another curricular subject area (i.e., language arts)?

Profundity and amplitude of cognition in visual arts and other subjects were not ascertained by the Arts Cognitive Tracking System. Measuring of growth to determine specific degrees of change was not the intent of the system, nor of the study. Rather, the impetus behind the system was the development and implementation of a useful classroom tool that could easily track synthesis of DBAE concepts as documented in written and oral expressions about works of art. To this extent, the study was successful in that the system was able to reflect growth in art cognition and in certain other content areas.

What becomes visually apparent when comparing each student's pre-written art expression to the student's own post-written art expression is the lack of balance among the four disciplines in the former and the presence of balance in the latter. Most written art expressions produced between the seventh week and the eighteenth week of instruction tend to be color-coded as art criticism (i.e., red) or production (i.e., orange). Written expressions after the eighteenth week and through the final grading cycle demonstrate less stress on one art discipline, but tend to incorporate more of the disciplines in some form. Nonetheless, it should be noted that throughout the waning months of the study, description, interpretation, and production references remained predominant in most written expressions.

26 Expressions written during the first six-week grading cycle are not included as evidence for this conclusion because children were introduced to each discipline as a separate component. Writings from this period, therefore, tend to exhibit the emphasized discipline and do not represent synthesis of DBAE as a whole.
One of the most valuable assets of the ACTS is its ability to serve as a reteaching tool; both as a review for students and an assessment of student learning for the teacher. Using color-coded written expressions provided students with their own prompts for collaborative art discussions. In turn, these debate-like discussions allowed students to refine their own definitions of DBAE terminology, to apply this knowledge to art objects, and to internalize DBAE theory in a palatable way. Additionally, the communications specialist noted a trend for growth in language-arts abilities to parallel similar growth in art cognition. As students’ art fluency improved, individual vocabulary and expressive abilities also tended to expand. In a building block fashion, as vocabulary grew, sentence structure tended to become more complex. Other positive strides in language arts included improved abilities to write topic sentences, narratives, and descriptive passages, to sequence events and decipher fact from opinion, to determine main idea and use correctly antonyms and synonyms. Specific tests were not administered as a part of this study to track these changes, but anecdotal records of the communications specialist documented these changes in proficiency. At the beginning of the study, all students rated from unsatisfactory to satisfactory in their language-arts competency. Individual student’s progress in language arts at the conclusion of the final grading cycle ranged from unsatisfactory to excellent, with the majority rating satisfactory. The success of the study, the communications specialist suggested, was that art objects provided interesting visual investigations that students could explore in a variety of ways without the tedium of repetitious practice usually associated with development of grammatical skills. It also was suggested that visual arts assist students with associating certain language-arts principles with actual images; therefore making abstract concepts more concrete.

As suggested by the mid-point activity that incorporated a musical work of art with an art image in the intervention lesson, other humanities courses can profit from the ACTS.
Students demonstrated this benefit when they were able to interpret accurately a piece of romantic instrumental music using DBAE strategy. The intimate associations between the visual and performing arts suggest that this finding should not be a surprise, but more appropriately should be anticipated.

Remaining mostly static during the study were student's scores on tests of non-verbal intelligence. Learning the four constituent parts of DBAE and the inherent roles of art discipline experts contribute to better understanding in the arts but should not be expected to increase intelligence quotients. Because intelligence quotient testing is designed to rate learning ability, these quotients generally do not vary significantly during a lifetime.

Intervention programs such as the DBAE format for language-arts remediation strive to teach learners to function at individual best performance levels. This art-based approach can be proclaimed successful in teaching students to write and speak better, but it can not be propounded as a method for increasing intelligence. Moreover, differences in approaches between non-verbal measure and the ACTS System suggest that this lack of change in intelligence quotients should not be startling. Had non-verbal intelligence changed significantly during the study, further investigations would be highly and immediately recommended.

A conclusion drawn from documented accomplishments of the students in the study infers that DBAE immersion contributes to better learning outcomes. The students' scholarship, in conjunction to the limited intercurricular connections made between general curricula and arts curriculum at the elementary campus under investigation by the study, further suggests that when stronger links are made among subject areas then learning is reinforced. Developing webs of meaningfully connected concepts and themes promotes understanding by demonstrating that life's events do not normally happen in isolation.
Question 3

Can learning about works of art with procedures used by art discipline experts change affective behaviors toward artists and works of art?

Exposure to a comprehensive art-teaching approach seems to contribute to a positive affective change upon student's appreciation of visual arts and artists, but changes about preferred types of art and favorite ways of making art remain generally unchanged. Review of the Pre- and Post Interviews for Affective Measure and the culminating intervention activity substantiate this conclusion.

Prefatory inquiry of the research group indicates that although a majority of the students (82%) stated that they enjoyed looking at works of art, this enjoyment appeared to be tempered by how well the individual admired the work of art in question. For example, when asked to discuss any of 15 different art images, these children typically chose to talk about those images that they also had cited as favorite. In the earliest stages of the study, the students were most often attracted to representational works or abstract works that had some form of recognizable content. Works of art already known to the students, pleasing colors, and images that seemed to offer effortless interpretation also appealed to the group at this time.

At the close of the study a slightly higher percentage of students (91%) stated that they enjoyed looking at works of art. Generally similar to the pre-interview results, these students remained predominately aligned towards representational art or abstract art with recognizable subject matter. As demonstrated in the conclusive intervention activity, when given the opportunity to select an art image and artist to research, 3 of 5 groups elected to use representational art images. The remaining two groups chose abstract images with clearly identifiable and highly narrative content. In a like manner to selecting
favorite images during the Post-Interview for Affective Measure, non-representational images were considered, but ultimately shunned, by the students.

While opinions about favorite types of art did not change significantly during the year of the study, attitude changes about works of art were noted. Post-interview dialogue indicated that these children spoke readily about less favored works of art, offering reasons for their choices, and often adding that it was a difficult chore to select a single image as favorite. This broadened sense of acceptance and tolerance of diverse art objects suggests that as art knowledge grows, fear of the unknown diminishes, and students feel more comfortable observing and discussing works of art regardless whether the work is personally liked.

In imminent association to liking to look at works of art were the student's definitions or ideas about what constitutes art. At the start of the study, the children's philosophical viewpoints about what is or is not art revolved around liking or disliking an object. Intervention seemed to extinguish much of this misconception and directed these learners onto a different path. Developing, applying, revising, and reapplying their own DBAE terms allowed these students to determine an effective method for approaching a work of art through exploration of the object's worthiness to be categorized as beautiful or valuable to its culture and time or to other cultures and times. This strategy, one which incorporated empowering students with the responsibility for their own understanding, conforms to classic learning taxonomies that prescribe starting with basic knowledge and concluding with synthesis of concepts. At the conclusion of the study, aesthetics remained the most difficult of the four disciplines of art for the students to articulate, however, these students were more likely to question the worthiness of an object before casting an unqualified positive or negative judgment.
As mentioned in a prior conclusion, the deficient reach of the student's prior art knowledge was quickly made apparent when the list of favorite artists cited for the Pre-Interview of Affective Measure included only well-known European males and a contemporary cartoonist. Learning about a variety of artists, their lives, contributions to history, their ideas, and production procedures seemed to assist in the acceptance of many different artists. Most telling in the post-interview was that four American artists joined the list of favorites, and one was female. Counter to the post-interview's somewhat positive finding in change of attitudes about who can be an artist, the student's selection of artists for their final research embodied only slight cultural diversity. Of the five images chosen, all were created by men. Two of the images were made by Europeans (Italian and French) and three by Americans. Of the Americans, two were Anglo and one African-American. Although the non-inclusive aspect of this finding appears to berate the research group's expanded acceptance of different artists, it is perhaps more appropriate to suggest that no cultural bias was intentionally exhibited by the selections. The groups of students plainly stated that they chose images because they were appealing to them. Discovering who created the works of art was supplemental to the selection process. Clearly, these students were not searching for a familiar image by Monet, da Vinci, or Van Gogh to investigate, but rather, chose works unfamiliar to members of the collaborative groups. Apparently, these images spoke to the students because of each child's art background and culturally prescribed aesthetic, thus suggesting that issues of cultural diversity had not been deeply broached in either the art classroom or the language-arts intervention classroom.

Favorite ways of making art remained generally unchanged throughout the research project, suggesting that Discipline-Based Art Education as an intervention tool has little impact on this aspect of art learning. Eliminated from the post-response about favorite
ways of making art were the activities of cutting, pasting, and origami. Sculpting with
found objects was added to the post-response. Little evidence can be found to document
this meager change in opinion. All students stated that the cited favorite production
activities had been introduced in the art classroom by the art specialist, thus suggesting
that art teachers can influence production preferences of their students. It is noteworthy
that when students were placed in charge of planning and executing their own meaningful
art production to accompany their final research, all the activities were later cited on the
post-response as favorite ways of making art. This substantiates a previous conclusion
that revisiting art and artists over time helps students retain and apply art information in
other educational arenas beyond the studio but does not seem to explain a lack of change
in art production preference.

Question 4

Can the ACTS be utilized by other student populations beyond
those in the study group?

A capacity to expand art understandings seems to accompany application of the ACTS
to young and adult learners alike. Strategic to the system, no matter what the age or
experience level of the learner, is constant revision and application of art information. The
color-coding system seems to provide a basis for judging art cognition while developing
an ever widening art foundation.

Review of broad results from the two pilot studies suggests that ongoing self-
evaluation contributes to better art cognition. Elementary, intermediate, and secondary
students who wrote about an art object before modification in art teaching with
comprehensive art education strategies produced art expressions that demonstrated
minimal understanding of how to observe and interpret works of art. After these student's
art teachers were instructed in basic DBAE strategy and the students in turn were exposed to a DBAE art lesson, subsequent writings exhibited attempts to analyze and interpret works, explore art production methods, and include historical information about the artist. In the museum environment, these students were eager to discuss their ideas about the studied works of art. These changes were readily tracked through the ACTS process. First writings of these students (similar to the writings of students in the research group) were primarily composed of short, non-descriptive sentences or phrases that were typically characterized as art critical in content. Second writings were generally longer and more complex with color-coding tending to be art critical, art historical, or production-oriented. With such visible changes without student use of the ACTS process, it could be inferred that these students would benefit from the reteaching, self-evaluation aspects of the color-coding system.

Adult learners in the second pilot study were trained in application of the ACTS to their own and their peers' written art expressions. In repetition of the first written expressions of the younger learners, the adult writings were generally simple, brief, and art critical in content. Final writings, however, showed significant growth. Few of the written art expressions of the adult learners failed to include reference to each of the art disciplines. Most compositions were lengthy with intricate analysis and poignant interpretations.

Review of work produced by preservice students in an informal concurrent study indicated similar findings to those of the adult learners in the second pilot and to those of the language-arts deficient students in the actual study. These university-age students maintained portfolios of their written art expressions for one complete semester. These students were completely trained in the application of the ACTS process and used the system throughout the semester to evaluate their own and their peers' art expressions.
First writings by these students were heavily weighted to art history probably because each was either enrolled in or had recently completed art history courses. Because of this basic art knowledge that these university students already possessed, the ACTS provided opportunities for the preservice teachers to assess and refine their individual art cognition before attempting to teach from the framework of DBAE. The success of this practice was demonstrated in summative peer teaching experiences wherein each preservice art specialist developed an original DBAE art lesson that reflected synthesis of the concepts and coequal value of the four fundamental disciplines of art.

The success of the preliminary studies and the concurrent study suggests that the ACTS could be successfully utilized by other student populations.

**Question 5**

What information has been learned by the students?

Students who participated in this research project were similarly immersed in visual-arts and language-arts programs. Insofar as these subject areas were so directly related during each language-arts intervention lesson, it is not surprising that gains in knowledge acquired by the students corresponded to higher order thinking skills in both visual arts and language arts.

With this concentrated correlation between the two curricular areas, segregating and categorizing learning as inherent to one or the other subject becomes difficult. For example, by elevating art observational skills from simple description to encompass analysis and interpretation, student's vocabulary, sentence structure, and abilities to contrast and compare showed correspondent improvement. Separating visual-arts learning from language-arts learning seems, in the instance of this research, to flow counter to the tenets of comprehensive educational practice. Rather, it seems more viable
to cite what has been learned and to suggest that visual-arts and language-arts cognition happened in concert, not in isolation; that interdisciplinary learning enhances all cognition without sacrifice or cannibalization of the core structure of any subject area. Such misuse of disciplines is frequently demonstrated when art objects are used in less than meaningful ways to teach other topics. For instance, counting trees in a landscape painting teaches mathematics skills at the cost of lost artistic intent. Questioning why or how the artist used a certain number of trees in the landscape enriches both subjects. Such is the nature of the learning documented by this dissertation. By incorporating works of art in meaningful ways into a language-arts intervention program, these language-deficient students simultaneously were able to develop visual arts skills that meshed with their growing proficiency in language arts.

Nonetheless, in an endeavor to answer the posed question about what information was learned, an itemized list of the research group's cognitive improvements was constructed. The use of this list does not suggest an attempt to sequester visual-arts learning from language-arts learning; rather, it is a method of illustrating the overlapping character of two typically isolated curricular subjects. An inventory of cognitive improvements posted by a majority of the students in the research group included:

- Increased observational skills,
- Stronger vocabulary and better use of vocabulary in written and oral dialogue,
- Better ability to isolate and state a problem,
- Use of diverse tactics to solve problems,
- Improved ability to develop multiform solutions for a single problem,
- Greater capacity to apply certain rules of grammar to real life situations,
- Refined use of correct sentence structure in written and oral dialogue,
- Effective ability to contrast and compare dissimilar objects,
• More competence in stating the main idea, and
• Expanded capability to write topic sentences.

Locating and addressing similar educational needs in diverse curricula seem to strengthen understanding in all areas addressed. Meaningful, interdisciplinary visual-arts investigations can connect students to other modes of learning besides those addressed in mainstream classrooms (e.g., lectures, reading, and book drills). The success ratio of this language-arts intervention program suggests that different ways of knowing can be effectively addressed by disparate avenues of cognitive exploration. Providing these alternate routes to predetermined cognitive goals assists those students who sometimes require unconventional tactics such as seeing images, touching objects, or using body movement to learn.

Recommendations

Predicated upon the findings of this research project, a variety of recommendations and warnings of pitfalls are submitted for consideration. These recommendations include issues about collaborations, teacher training, culturally diverse considerations, and further development of the ACTS.

Recommendation One: Collaborations

Partnerships derived from educational collaborations seem to contribute to a better learning environment. As evidenced by the cognitive growth of the students in the research group after they began consistently to work in groups, collaborations tended to downplay individual student weaknesses while seeking out and supporting group strengths. Whereas learners working in isolation seemed inclined to focus upon single problems and solutions, collaborative groups stalked a problem's solution with a more
global approach and offered a variety of resolutions derived from discussion or experimentation. This point was dramatically illustrated when collaborative groups designed and created meaningful art products to interpret masterworks. Teams worked toward a single goal but tried any number of methods to reach a satisfactory outcome. For example, when one student became frustrated that the warren trusses of a bridge could not stand in a vertical position, another student suggested constructing the supports on a horizontal surface and then lifting them into place. What could have become an insurmountable obstacle for a solitary learner became a successful exercise in diverse thinking and cooperative strategy. Approaching a problem as a team, rather than as an individual, appears somewhat to remove the intimidation factor or fear-of-failure from the educational arena. Combined voices offer strength as exemplified in the willingness of these language-deficient students to perform orally before their mainstream peers.

Achievements, such as these two examples, were witnessed throughout the research project and suggest that the benefits of collaborative learning outweigh the perceived negative aspects (e.g., discipline problems, leaders accepting too much responsibility, and followers not contributing). As with any scholastic environment, monitoring of student activity remains paramount to actual learning. Empowering students to be active participants in their own education sometimes creates noisy classrooms; but similar to a clean desk, perhaps a silent classroom should be more suspect than a boisterous one.

Collaborations attenuate beyond student groups. Indeed, the underlying nature of Discipline-Based Art Education demands that educators work as a unit, not as single entities. Interdisciplinary connections require what the term implies: various branches of knowledge or subject areas meet and overlap. In addendum to this basal definition, the connections also should be substantial and meaningful. Faculty collaborations, then, need to be mindful of foundational components of each content area and recognize them as
equals; not using one area to teach another but teaching each as connected counterparts with equivalent value. To this end DBAE can be considered a framework from which to build educational partnerships. Based upon the success ratio of the students in the study in comparison to the limited interdisciplinary connections to which they were exposed, it can be inferred that expanded links incorporating more educators and subject areas could further enhance learning outcomes. It seems logical to suggest that immersion of an entire faculty and curriculum with DBAE tactics and interdisciplinary reciprocity would enrich and enliven the educational atmosphere both for students and teachers. To paraphrase Alfred North Whitehead, a meaningfully connected curriculum counteracts the dry rot of an isolated, disconnected education.

One method of linking the curriculum is through collaboration. Not all personalities or situations, however, are conducive to successful collaborative work. Documentation of a variety of collaborative situations throughout this study has lead to a definition of who is most apt to be a collaborative learner and what environmental characteristics tend to facilitate successful collaborations. Seven traits of a collaborative learner and six environmental characteristics that contribute to success are outlined here.

Successful collaborative learning groups consist of people who:

1. Are equally comfortable being the leader or a follower or are willing for all members of the group to be coequal,
2. Have a trust of others in the group,
3. Are flexible in their thinking, planning, and execution of projects,
4. Are willing to change fixed ideas,
5. Possess an ability to blend diverse ideas into one or more workable solutions to a problem,
6. Have a fundamental respect of others in the group,
7. Have social skills that enable positive interaction with others, and
8. Are in command of communication skills so that ideas can be freely exchanged.

Further, successful collaborative groups tend to:

1. Have no more than four members,
2. Meet at specified times,
3. Meet deadlines,
4. Have members who work in near proximity to one another (use the same room, work station, or table),
5. Have members with diverse interests and skills, and
6. Utilize all available resources.

This study endorses and recommends collaboration between students, faculty, and content areas and additionally suggests that these collaborations are not only beneficial but vital to quality learning outcomes for all learners.

Recommendation Two: Implications of Preservice and Inservice Teacher Training

More intensive training is needed to implement strong discipline-based art programs within United States public schools. At best, brief seminars, workshops, and inservice instruction provide an introduction to the complex, esoteric nature of teaching through the framework of Discipline-Based Art Education. Such rudimentary exposures assist with making teachers aware of DBAE, but cannot be expected to prepare them adequately for extensive revamping of essentially studio-oriented art programs. The lack of art historical and aesthetic understanding of the elementary students in this study substantiates the assumption that DBAE workshops are no guarantee that art specialists and generalist teachers synthesize or will appropriately implement discipline-based art programs after they have been trained in this cursory way. Although it is probably unreasonable to expect
the majority of art specialists already in the field to return to universities for supplemental course work in discipline-based strategy, it is not illogical to turn to those preservice art specialists who are embarking upon their careers. The future of comprehensive, quality education seems to be squarely in the laps of the next generation of art educators and the colleges that train them. Development of rigorous DBAE courses intended to immerse preservice art specialists in theory and application will likely ensure effective art programs in the nation's schools more so than presenting occasional workshops for inservice specialists. As demonstrated by certain art teachers in the district under study and who attend DBAE training, but continually rely upon studio production as the bedrock of their programs, it is human nature to return to that which is comfortable and familiar. If DBAE is offered as the preservice platform, it follows that novitiate art educators would be more at ease with consistent use of this integrated approach. Preservice art specialists whose art cognitive growth was paralleled with the cognition of the targeted younger group instinctively turned to DBAE fundamentals when designing their own art lessons. Because of their core teaching preparation, studio production and descriptive dialogue became but a portion of a complete art lesson cycle. Ignoring analysis, interpretation, history, or aesthetic issues became antithesis to these preservice specialists whose own art lessons demonstrated painstaking, coequal inclusion of each discipline.

The conclusions of this research project point to the effectiveness of using a DBAE environment to develop an integrated curriculum. In consideration of the limitations enforced upon the study (e.g., time constraints, number of students, and number of teachers involved), implications are that schoolwide use of an interdisciplinary curriculum could have a positive impact upon all learning throughout the grade levels. Art specialists who are thoroughly trained in DBAE strategies and who have synthesized DBAE concepts have the potential to lead their schools and districts in this changing of the
educational guard from isolated to integrated learning. Teaching through the framework of Discipline-Based Art Education as opposed to teaching about DBAE seems to be the clearest distinction that separates preservice-trained specialists and inservice-trained specialists. Whereas the former suggests complete understanding and application of concepts, the latter suggests only primary cognition. Before DBAE can be assimilated through schools, teachers need to exhibit comprehensive understanding of its ideas and applications. This seems best achieved through preservice training.

Recommendation Three: Incorporating Culturally Diverse Art and Artists in the Curriculum

The research project was conceived, designed, and implemented with the primary function of tracking changes in art cognition and language-arts abilities when Discipline-Based Art Education was used as the structural support for a language-arts intervention program. Issues of cultural diversity regarding artists and their works of art were not intensely considered as an integral component of the study because of the concentration upon correlation between visual arts and language arts. Cultural exclusivity within the study was not a covert attempt to avoid these issues, but rather was skirted in an endeavor to streamline the highly complex material that children in the study would encounter. Calling upon these language-deficient students to investigate three particular types of art (representational, non-objective, and abstract) without regard to ethnic origin of the artist was contemplated carefully before the study began. No bias was intended by exclusion of divergent art forms from different cultures. The narrowness of cultural focus was devised so that students with greatly limited attention skills could better stay on task by restricting the scope of the images they could access. This lack of cultural diversity within the research, however, provides an opportunity for recommendation that artists and works of
art representing a range of cultures should be included in well-rounded visual-arts programs.

Within the data educed from the Pre- and Post-Interviews for Affective Measure is found a seed that points to potential benefits of a culturally inclusive curriculum. Keeping in mind that no mention was made to the students during the interviews about ethnic origin or gender of artists, it appears that information received during an intervention lesson changed student perceptions about one art object that had been created by a woman. During the pre-interview, only two students (18%) chose Deborah Butterfield's sculpture, *Hina*, as their favorite image from the 15 images shown. At the post-interview this number had doubled to four (36%), three of which were responses from female students. Additionally, anecdotal records indicate that two other students fluctuated between the Butterfield and the Remington as their favorites, but ultimately settled upon the Remington. In another instance one group of students selected, without teacher moderation, an abstract image by African-American artist, Romare Bearden, as their final research project. This collage, although abstract, clearly depicts an urban black family at home and at work. Attributing such affective changes to gender awareness, ethnic familiarity, or better understanding of art objects is both hasty and probably unfounded. Nonetheless, change did occur, suggesting that when students are taught about disparate artists and their works of art, positive affective behaviors can be produced.

Art curriculum, akin to other curricula, needs to be sensitive to the ever-changing face of the students it proposes to instruct. Eurocentric art objects, while generally considered the cornerstone of Anglo-Western civilization, do not necessarily meet the complete demands set forth by widely variable classroom demographics. This is not to suggest that non-Western art should be added to the curriculum at the expense of Western art being eliminated or reduced to an insignificant level; rather, both should serve as resources that
teach all learners about the vast similarities between diverse civilizations. Visual imagery affords students opportunities to explore, discuss, meditate, understand, and appreciate a world that seems to be shrinking in size through rapid technological advances. Uniting students through works of art from a variety of times and places helps to bridge the gap formed by cultural differences.

It is the recommendation of this study that inclusionary approaches be considered throughout the elementary art curriculum, beginning at the earliest grades and continuing through high school graduation. The positive affective changes exhibited by the students in this study after their brief exposure to a restricted number of non-Eurocentric works of art suggest that enriched exposure with images and objects from many cultures and times could strongly change student perceptions about who can be an artist and what can be considered an art form.

**Recommendation Four: Further Development of the ACTS**

The Arts Cognition Tracking System is a substantial step towards providing a model that simultaneously assists with teaching, learning, and evaluation. The intrinsic capacity of the ACTS provides teachers and students with an evaluation process that is practical yet multifaceted. The System's greatest strengths lie in its abilities to recognize individuality and facilitate evaluation as a confidence-builder. In recommendation that the ACTS be additionally developed with other groups of learners, these strengths are further explored here.

**Recognizing Individuality**

Obligatory to assessment and evaluation procedures in this rapidly changing world is the need to develop new methods for determining cognition. Antiquated techniques that
require standardized responses without variation from student to student resemble the assembly line products for which such measures were originally intended. Unlike the Industrial Age, however, contemporary society constantly demands that individuals make choices and decisions based upon an overwhelming amount of information provided by any number of sometimes conflicting sources. This type of decision-making process requires personal evaluation that cannot be addressed by filling in a multiple choice bubble or checking a box. Self-evaluation is a life skill that should be introduced at an early grade level and cultivated throughout an educational lifetime. Hicks, Hicks, Powell, and Simonton (1996, p. 55) state, "self-evaluation skills are a key to the future for everyone" and that proficiency with evaluation alternatives in a variety of settings helps to meet successfully the challenges of the unexpected. Self-evaluation easily translates to self-responsibility which in turn relates to empowering students to be accountable for their own "learning, unlearning, and relearning" (p. 52). The ACTS, in conjunction with portfolio collections, provides a real life environment wherein students are required to make personal choices, evaluate those choices, revise, and justify final products much as they will be expected to do in adulthood.

Confidence-Building

Evaluation becomes a frightening aspect of education when it is viewed as something that those who are being evaluated are not a part. Many teachers cringe at the thought of administrators periodically rating their classroom performance. At the same time a similar situation develops as the students of these same teachers fret about upcoming scheduled exams. These fearful ruminations result mostly from the pressures of external evaluation, processes that tend to be standardized or fixed to produce numerical scores that allow for comparisons between individuals or groups. One must question if the anxiety produced
from these types of situations is beneficial to learning especially when contrasted with less stressful internal evaluation procedures. In almost direct opposition to external evaluation, internal procedures are somewhat self-directed, not necessarily carried out at scheduled intervals, are flexible, and tend not to cater to static responses. The ACTS falls in the latter category as a malleable mechanism for teaching, learning, and tracking cognitive growth on a cyclical basis. Additionally, the System allows each student to demonstrate synthesis in personal ways without placing accountability for learning solely upon the teacher. The ACTS was so incorporated into the research group’s learning that it is doubtful that the students recognized the System as an evaluation tool nor realized that they had been tested along the way. These sorts of covert assessment procedures serve as confidence builders by providing students with opportunities to determine their own efficacy and correct their own weaknesses without fear of irrevocable summative failure.

**Additional Recommendations for Further Development of the ACTS**

Based upon the strengths of the Arts Cognitive Tracking System that have been outlined throughout this chapter, the recommendation of the study is that the System be tried in other educational settings and with larger populations of students and teachers. The concept of an immersion school with the entire faculty and student population cooperating within a DBAE framework and utilizing the ACTS as a learning and evaluation device would abet the outcomes stated within this dissertation. Smaller scale partnerships with specific grade levels or special populations such as gifted and talented, English as a second language, or courses that address children with special learning, emotional, or physical challenges could confirm the value of the System to an integrated approach to learning. However, before implementation of the ACTS in any educational
setting, certain other recommendations are advised. These additional recommendations are that the System:

- Continue to be developed and refined,
- Develop a way to track depths of learning, and
- Continue to maintain its practical nature for student and teacher application.

During the school year that this research project followed the progress of students in a speech intervention program, documentation was made of a growing sophistication of ability to respond to works of art. The ACTS was used from the beginning through the conclusion of the research, tracking cognitive growth from its lowest to its highest, and providing a scaffold from which stakeholders could view changes in learning. The ACTS can be deemed successful in its ability to document student growth for the group under consideration, but hazards of implementing the exact process with other groups of learners should be deliberated. For example, if using the System with older or more experienced learners, using only four colors for coding the art disciplines could become repetitious and non-stimulating. One way to circumvent this problem would be to recognize the hierarchy of cognition represented within each discipline. In the case of art criticism, instead of color-coding all critical comments in red, the various parts of criticism could be coded separately to differentiate between each concept. The lower order thinking skills of simple description and judgment-making could be contrasted against the median cognitive skill of analysis and the higher order skill of interpretation. Thus, while one objective in using the ACTS is to develop a more balanced approach to writing and talking about works of art, this refined version additionally would allow for balance within a single art discipline. Similarly, this tactic could be applied to the other disciplines, dividing each into its constituent parts.
As demonstrated through the frustrations of the students in the research group during the opening weeks of the study, the ACTS can pose problems for students and teachers who are not familiar with the four disciplines of art. In this circumstance, a thoughtful introduction of each discipline and consequently one color of coding would be necessary to assure synthesis of each topic. Imminent to the success of the ACTS, or any internal evaluation method, is that it is not allowed to become stagnant. Fluidity of the system maintains its applicability to almost any variety of educational circumstances. It is compulsory that educators acknowledge the changing nature of their students' comprehension and adjust evaluation accordingly. No evaluation procedure is equally successful in all situations.

A final recommendation for application of the ACTS is that future research should focus upon tracking the depth of art cognition in students. The aforementioned method of using more colors to code the integral parts of each discipline is a springboard into this next phase, however, this technique stops short of measuring to what extent a concept has been learned. Rubrics that delineate learning expectations and then specify what is below level, on level, or above level could circumscribe how well students understand art ideas. Designs of such rubrics need to be ever heedful of the requirements of those who would use them: teachers and students. Series of numbers or geometric markings of words, phrases, and sentences already color-coded by discipline could generate more precise information about art understandings, but such enumeration or symbols would be at the cost of ease-of-use. Until art understanding and internal evaluation processes become inherent to both teachers and learners, simplicity should be the hallmark.
Closing Comments: A Personal Response to the Research Project

As education nears the third millennium, the direction the field is taking seems to be one of empowerment: empowerment of schools to define and pursue their own learning goals and objectives; empowerment of teachers to find and administer alternative teaching strategies; empowerment of students to be responsible for their own learning; and empowerment of the community to provide diverse educational opportunities and environments. Founded upon the conclusions of this study, such empowerment can be achieved through:

- A variety of collaborations, both professional and with student groups,
- University training of preservice art specialists, and
- Application of ACTS, especially its components of self-evaluation and reteaching.

In forward-thinking states such as California and Maryland, and most recently, Texas, the issue of enabling education to define and control itself is exemplified by what is coined "schools of choice" or, more accurately, "open-enrollment charter schools." In these charter schools, like-minded educators, students, and parents interact in ways that they deem most appropriately address the educational needs of a narrowly defined student population. As opposed to traditional public schools that draw student populations from a defined geographic region, chartered public schools draw populations from a narrowly defined student profile with disregard to geographic boundaries. While charter schools remain accountable for student learning, these schools are not governed by state imposed laws and regulations such as number of instructional minutes per subject or specifically delineated hierarchies of administrative personnel. In most instances, charter schools are invited to create individual contracts between themselves and state school boards, and to operate under the independent charter, separate from other public schools.
Charter schools are placed in the unique situation of redefining education. In the first charter school of Texas, visual arts will function as a common thread throughout the curriculum. Such a fortuitous circumstance provides an arena for a rich discipline-based art education program that will utilize the recommendations and conclusions of this study. This scholarly environment will sustain development and implementation of the Arts Cognitive Tracking System through meaningful application of art concepts to a variety of content areas. Collaborative teams of teachers will deliver correlated lessons while collaborative learning groups explore the connective nature of the material. Reteaching by educators in tandem with student self-evaluation and student self-reteaching will underscore each educational activity. Preservice art educators will be granted occasions to serve as mentors to the charter school's students while faculty members serve as mentors to the preservice educators.

Unencumbered by many constraints that shackle traditional public schools, it is predicted that comprehensive art education and a correlated curriculum will flourish and contribute to a high student success rate at Texas' first chartered public school. This charter school is a virtually untapped source of research possibilities. The ACTS will be employed at this school, but it is further recommended that other researchers develop dissimilar systems or attempt to measure the degree of success of student learning outcomes in this environment. Non-prejudicial accounting of student learning is required and indeed invited so that the worth of educational empowerment is substantiated.
APPENDIX A

ACTS COLOR-CODING SYSTEM
## ACTS COLOR-CODING SYSTEM

### ART CRITICISM

1. **Descriptive** words that transcend inventories or laundry lists. *Acceptable:* A half dozen small wooden sailboats, some with lowered sails, seek refuge from the pounding white capped waves and heavy winds. *Not acceptable:* The painting shows six boats in a storm. [An art critical description should be precise enough that someone not familiar with the work of art could readily identify it from the description.]

2. **Words that analyze.** White paint contrasts with dark blues and greens to draw the viewer's attention to the rough sea.

3. **Judgments.** The most important part of the painting is the stormy sea.

4. **Interpretations.** What is the work about? What is its meaning?

### ART HISTORY

Artist's name, title of the work, time period, style, culture, dates, influences upon the artist such as other artists, styles, or world history

### PRODUCTION

Media, tools, supplemental materials, methods of creating, "how to...", specific identification of type of work such as "painting", "print", "sculpture", "mixed media", or "collage"

### AESTHETICS

Statements about broad issues or questions such as "This is art...", "This is not art...", or "This is beautiful..."
ACTS COLOR-CODING SYSTEM

Prerequisite to implementation of the ACTS is that instructors have an intrinsic understanding of discipline-based art education theory and further are able to effectively teach through the four foundational components of DBAE.

Materials: Images (Postcard format or poster format)
        Writing Paper
        Markers, Crayons, or Colored Pencils (Blue, Green, Orange, Red)

Procedure: 1. Distribute postcard images to individuals or display one large image for the group.

2. Ask students to observe image(s) for about 1 - 2 minutes.

3. Without discussing the image(s), ask students to write for approximately 5 - 10 minutes about what they see. Do not provide additional instruction at this time.

4. If students are not familiar with DBAE strategies for observing and interpreting works of art, collect writings and color code each word, phrase, or sentence with its corresponding ACTS color.

If students are familiar with DBAE strategies, ask students to color-code their own writings to reflect the essential art nature of each word, phrase, and sentence.

5. Ask students to read aloud their writings and to mention how each word, phrase, or sentence is color coded.

6. Collaboratively discuss reasons for individual color coding. Determine correctness and ask students to explain with substantiated reasons.

7. Repeat this process at intervals throughout the school year, encouraging students to use a balanced approach in their communications about works of art.
APPENDIX B

SAMPLE: ACTS COLOR-CODED WRITTEN EXPRESSION
Charles Russell and *The Horse Thieves*

The name of the artist is Charles Russell. He was born in 1864 and died later in 1926. He was 62 years old when he died. He was born and died in America. He was doing sketches all of his life. He went to military school and failed every class except history! Later his dad sent him to art school and then let Charles Russell go live on a ranch in Montana.

This work of art is called *The Horse Thieves*. *The Horse Thieves* was painted in 1901. It seems to be a real event because you can see all of the details that the artist used. We do not think he made this up. Russell used oil paint on canvas to paint this painting. It looks like evening because the sky is not bright and you would not be a horse thief in the daytime anyway! This painting is in a museum in Fort Worth and is art because it is neatly made about a time that was important to our country.
APPENDIX C
AFFECTIVE INTERVIEW INSTRUMENT
AFFECTIVE INTERVIEW INSTRUMENT

1. Do you like to look at works of art?
   Yes  No

2. Who is your favorite artist?

3. Which is your favorite image (from each of five sets shown)?
   Group I
     Power (Representational)
     Upsilon (Non-objective)
     New York (Abstract)
   Group II
     Sunrise, Yosemite Valley (Representational)
     Place de la Concorde (Non-objective)
     River Bank in Springtime (Abstract)
   Group III
     A Dash for the Timber (Representational)
     Untitled (Non-objective)
     Hina (Abstract)
   Group IV
     Wrapped Oranges (Representational)
     Light Cloud, Dark Cloud (Non-objective)
     Drawing Board with Onions (Abstract)
   Group V
     A Lady at the Paris Exposition (Representational)
     Woman (Non-objective)
     Lady in Blue (Abstract)

4. Why?
   Group I
   Group II
   Group III
   Group IV
   Group V
5. Which is your favorite of all 15 pictures? Tell me about the picture you have chosen.

6. Who created this? When? How do you know?

7. Do you think that this is a real work of art? Why?

8. How was the original picture made?

9. Who is your favorite artist?

10. What type of art do you like to make?
APPENDIX D
IMAGES USED WITH AFFECTIVE INTERVIEWS
<table>
<thead>
<tr>
<th>Group Number</th>
<th>Title</th>
<th>Artist</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td><em>Power</em>, undated</td>
<td>Edward Bruce</td>
</tr>
<tr>
<td>I</td>
<td><em>Upsilon</em>, 1960</td>
<td>Morris Louis</td>
</tr>
<tr>
<td>I</td>
<td><em>New York</em>, undated</td>
<td>Max Weber</td>
</tr>
<tr>
<td>II</td>
<td><em>Sunrise, Yosemite Valley</em>, undated</td>
<td>Albert Bierstadt</td>
</tr>
<tr>
<td>II</td>
<td><em>Place de la Concorde</em>, 1938-1943</td>
<td>Piet Mondrian</td>
</tr>
<tr>
<td>II</td>
<td><em>River Bank in Springtime</em>, 1887</td>
<td>Vincent van Gogh</td>
</tr>
<tr>
<td>III</td>
<td><em>A Dash for the Timber</em>, 1889</td>
<td>Frederic Remington</td>
</tr>
<tr>
<td>III</td>
<td><em>Untitled</em>, 1954</td>
<td>Franz Kline</td>
</tr>
<tr>
<td>III</td>
<td><em>Hina</em>, 1990-1991</td>
<td>Deborah Butterfield</td>
</tr>
<tr>
<td>IV</td>
<td><em>Wrapped Oranges</em>, 1889</td>
<td>William McCloskey</td>
</tr>
<tr>
<td>IV</td>
<td><em>Light Cloud, Dark Cloud</em>, 1957</td>
<td>Mark Rothko</td>
</tr>
<tr>
<td>IV</td>
<td><em>Drawing Board with Onions</em>, 1889</td>
<td>Vincent van Gogh</td>
</tr>
<tr>
<td>V</td>
<td><em>A Lady at the Paris Exposition</em>, 1889</td>
<td>Luis Jimenez Aranda</td>
</tr>
<tr>
<td>V</td>
<td><em>Woman</em>, 1965</td>
<td>Willem de Kooning</td>
</tr>
<tr>
<td>V</td>
<td><em>Lady in Blue</em>, 1937</td>
<td>Henri Matisse</td>
</tr>
</tbody>
</table>
APPENDIX E

COMPARISON OF AGE TO NON-VERBAL TEST SCORES
Comparison of Age to Non-Verbal Test Scores

Score/Age

Pre-Age
Pre-Score
Post-Age
Post-Score

Student Identification
APPENDIX F

FORMAT FOR WRITING AN ARTICLE ABOUT
A WORK OF ART
Writing an Article about a Work of Art

Before you can write or talk about a work of art you must first find out about the art and the artist.

Step I: Choose a work of art that interests you. Answer these questions about the work of art and the artist.

Who is the artist? 

Where was the artist born? 

When was the artist born? When did the artist die or is the artist still living? 

Find at least one interesting or unusual fact about the artist. 

What is the title of the work of art? 

When was the work of art made? 

What kind of art work is it? 

Describe what you see in the work of art. 

What is the main idea of this work of art?
List the steps that you think the artist followed when the work of art was made.

What materials did the artist use to make this work of art?

What tools did the artist use to make this work of art?

Do you think that this work of art is carefully made?

Do you think that this is really a work of art?

What makes this a work of art (or not a work of art)?

Would your friends agree that this is a work of art? Why?

Would someone a long time ago agree that this is a work of art? Why?

Would someone in the South Pole agree that this is a work of art? Why?
Step II: After you have answered these questions, use your answers to write:

- One paragraph that tells about the artist,
- One paragraph that tells about the work of art,
- One paragraph that tells how the work of art was made, and
- One paragraph that explains if this is a work of art.

Step III: Give your article an interesting title that would make someone else want to read it.

Step IV: Now, write a poem or make a picture that tells more about the artist or the work of art.
APPENDIX G
REQUEST FOR PERMISSION
TO PARTICIPATE IN A
DOCTORAL STUDY
Fall Semester, 1995

Dear Parent or Guardian:

An important research project will be undertaken in the 1995-96 school year in the Hurst-Euless-Bedford ISD in association with the University of North Texas School of Visual Arts. This study, conducted by a doctoral candidate in art education, will research and document the effects that a comprehensive visual arts education has upon learning outcomes of certain students in the district. Bedford Heights Elementary has been selected as the site for this study.

We respectfully request that you allow your child to be a part of this study. Please understand that although student scores will be researched to determine the effectiveness of the teaching methods used, your child's identity and all personal records will remain anonymous to the researcher. All student participants will be assigned a number by the cooperating teacher. Any information given to the researcher will be identified by the student's identification number only. During the duration of the study, photographs may be taken of students studying works of art. Photographs will be such that any participating student cannot be identified.

No additional tests will be administered beyond those prescribed and normally given by your child's teacher. Your decision to allow your child to participate will in no way affect your child's standing within the class or school. Participation is voluntary. Your child may withdraw at anytime without penalty, prejudice, or loss of benefits.

This study has been approved by HEB ISD and has been reviewed by the University of North Texas Committee for the Protection of Human Subjects. Results of the study will be reported to the district for use in future curriculum planning.

If you have questions about this study, please feel free to contact the researcher:

Pamela Geiger Stephens, Teaching Fellow & Graduate Researcher
North Texas Institute for Educators on the Visual Arts
University of North Texas P.O. Box 5098 Denton, Texas 76203
267-3731 Extension 3986

You may also contact your student's teacher, Mrs. Susan Green, or Bedford Heights Elementary principal, Mrs. Eva Orr.

Your willingness to allow your child to participate in this study will help assure future quality fine arts programs in HEB. Please sign the attached Permission to Participate in a Doctoral Study form and return to your child's teacher as soon as possible. When the form is returned, your child's teacher will assign an identification number. The permission form will remain with the teacher so that the researcher will not have access to your child's identification.

Thank you for your cooperation with this research project.

Sincerely,

Pamela K. Geiger Stephens
APPENDIX H
RELEASE TO PARTICPATE IN
A DOCTORAL STUDY
Release to Participate in A Doctoral Study

Fall Semester, 1995

I give permission for my child to participate in a doctoral study that will focus upon the effects that a comprehensive visual arts education program has upon learning outcomes of certain students in Hurst-Euless-Bedford ISD. Although it will be necessary for the researcher to observe certain scores of students, I understand that my child's identification will remain anonymous to the researcher. A number, instead of my child's name, will be assigned to any test results the researcher will see and analyze. Any photographs taken of my child will be such that my child cannot be identified. There will be no additional testing beyond that which is normally administered by the teacher. My child may withdraw at anytime without penalty, prejudice, or loss of benefits.

The time period that this study will cover will be the duration of the 1995-1996 school year. Results will be reported to HEB ISD and will be available to parents of participating students at the conclusion of the research project.

Parent or Guardian Signature __________________________________________________________

Date _________________________________

Student Number as Assigned by Teacher __________________________
APPENDIX I

ASSENT TO PARTICIPATE IN

A DOCTORAL STUDY
Assent to Participate in a Doctoral Study

Fall Semester, 1995

I consent to participate in a study at Bedford Heights Elementary School that will examine how I express myself in writing and conversation about works of art.

I know that I am not required to participate in this study and I volunteer to participate.

This study is scheduled to start this fall 1995 semester and finish at the end of the spring 1996 semester. I can withdraw from the study anytime that I choose without penalty, prejudice, or loss of benefits from the class.

Child's Signature ________________________________

Date ________________________________________

The content of this statement will be explained by the cooperating teacher to each participant in language and terms that the child understands prior to the child signing the form.
BIBLIOGRAPHY


Arts and Learning Research, 3, 76-89.
