

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration,
Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

**AN ARTS-BASED SUPPLEMENTAL RESOURCE'S EFFECT ON TEACHERS'
PERCEPTIONS OF CURRICULUM INTEGRATION, INSTRUCTIONAL
MATERIALS DEVELOPMENT, LEARNING ACTIVITIES SELECTIONS, AND
CRITICAL THINKING IMPROVEMENT**

by

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**Declaration Concerning Thesis Presented for the Degree of
DOCTOR OF PHILOSOPHY**

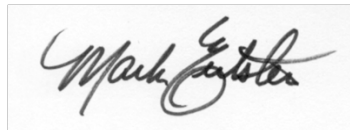
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**AN ARTS-BASED SUPPLEMENTAL RESOURCE'S EFFECT ON TEACHERS'
PERCEPTIONS OF CURRICULUM INTEGRATION, INSTRUCTIONAL
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God created me with the same creative power with which He created the world. With it I discern an innate curiosity and focus to learn how things work, this doctoral process of being socialized into a community of scholars one among them.

God blessed me with a family that fulfills my life. Son Andrew is becoming an outstanding person who knows what's right, acts on it, and explores his interests. Daughter Abigail tries different things, does her best, and finds favor among those she meets. My sacramental partner Therese has patience, diligence, and caring, which ministers to everyone with whom she connects. I love her and the encouragement she gives me everyday.

God further blessed me with a mentor a friend Dr. William C. "Bill" Moffit who always exuded encouragement, enthusiasm, and excitement about life, teaching, marching bands, and music. I was privileged to help select a phrase for his tombstone at the National Cemetery in Jacksonville, Florida, and "Teacher" was the most precise and accurate that epitomized his life. His friendship endures far after his passing and his marriage with Jeannette serves as a model to Therese and me.

Dr. Moffit's philosophy expressed as, "I never see mistakes; only better ways of doing things," while he was serving as the third director of the Purdue University *All-American Marching Band*, inspires me to find good, do good, and help others achieve good things as he did (and his legacy does) for me.

ABSTRACT

Indiana's declining SAT scores prompted the publisher of a statewide magazine covering the literary, performing, and visual arts to take action and create a program to use the magazine as a supplemental resource for students. It was believed that such a supplemental resource could enhance critical thinking and writing skills and help raise SAT scores. Arts Indiana, Inc., a not-for-profit organization, provided the organizational structure that launched the *Arts Indiana Magazine in the Classroom* program and sought sponsors to cover its costs.

It was believed that by integrating arts—in a multi-disciplinary approach—directly into Indiana classrooms, the program could enhance critical thinking and writing skills.

This study showed the ways in which a supplemental resource is used affects teachers' perceptions of curriculum integration, instructional materials development, classroom learning activity selections, and student critical thinking improvement. It revealed similarities and differences among use between grade levels and subject areas. It revealed the similarities and differences of use among teachers who used an accompanying teacher/student guide and those who did not. This study's literature review showed the value that various kinds of arts instruction and arts integration provided to the critical thinking skills development of students.

CONTENTS

ABSTRACT.....	iv
LIST OF TABLES.....	vii
LIST OF ILLUSTRATIONS.....	viii
CHAPTER I INTRODUCTION.....	1
Background Information	1
Statement of the Problem	23
Purpose of the Study.....	24
Research Problem.....	24
Initial Research Question	29
Subsidiary Questions	30
Assumptions, Limitations, Delimitations	30
Assumptions.....	30
Limitations	31
Delimitations	33
Definition of Terms	34
CHAPTER II FOCUSED LITERATURE REVIEW	36
Introduction	36
Arts Education Complementing Christian Education	36
Arts Education as a Steward of Culture	38
Arts Education as a Channel to Self-Esteem.....	40
Arts Education’s Impact on the Capacity to Learn and the Ability to Achieve	42
Arts Education’s Compatibility to Multiple Intelligences and Multiple Literacies ..	47
Arts Education and Aesthetics.....	52
Fostering Critical and Creative Thinking and Writing Skills.....	54

Multidisciplinary Integration and Effect	59
The Arts as a Part of the Academic Core	66
Literary, Performing, and Visual Arts as Curricula Supplemental Resources	68
Individual Lifelong Benefits from Arts Education.....	77
Economic Benefits From An Arts Literate Populous.....	79
Summary.....	81
CHAPTER III RESEARCH METHOD	84
Description of Research Design	84
Instrumentation.....	84
CHAPTER IV PRESENTATION AND ANALYSIS OF DATA.....	91
Recording	91
Processing.....	94
Analysis	Error! Bookmark not defined.
CHAPTER V SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	104
WORKS CITED	110
APPENDIX A CONSENT FORM	120
APPENDIX B STYLE MANUAL STATMENT.....	121
APPENDIX C REALIABILITY AND VALIDTY DATA FOR MEASURES USED .	122
APPENDIX D MEASURES USED AND INSTRUCTIONS FOR THEIR USE	123
APPENDIX E SCORING SYSTEMS FOR MEASURES.....	124
AUTHOR NOTE	125
NOTES.....	126

LIST OF TABLES

TABLE 1. ARTS INDIANA PARTICIPATING TEACHERS WHOSE INFORMATION SUBMITTED TO ARTS INDIANA WAS USED IN THIS STUDY	15
TABLE 2. ARTS INDIANA CURRICULUM STUDY TEACHER COURSE USE/STUDENT OUTCOME MEASUREMENT	94
TABLE 3. ARTS INDIANA CURRICULUM STUDY TEACHER USE OF GUIDE EFFECT ON WRITING AND DRAWING OCCURRENCES BY GRADE LEVEL	95
TABLE 4. ARTS INDIANA CURRICULUM STUDY TEACHER USE OF GUIDE EFFECT ON EVALUATION OF CRITICAL THINKING	96
TABLE 5. ARTS INDIANA CURRICULUM STUDY TEACHER COURSE USE/STUDENT OUTCOME MEASUREMENT	100
TABLE 6. ARTS INDIANA CURRICULUM STUDY TEACHER USE OF GUIDE EFFECT ON WRITING AND DRAWING OCCURRENCES BY GRADE LEVEL	101
TABLE 7. ARTS INDIANA CURRICULUM STUDY TEACHER USE OF GUIDE EFFECT ON EVALUATION OF CRITICAL THINKING	102

LIST OF ILLUSTRATIONS

FIG. 1. ARTS INDIANA’S MODEL TO ENHANCE CRITICAL THINKING THROUGH TRIANGULATION OF THREE CURRICULUM RELATED APPROACHES.	50
FIG. 2. BLOOM’S ORIGINAL TAXONOMY OF EDUCATIONAL OBJECTIVES (TAXONOMY OF EDUCATIONAL OBJECTIVES 1956).	74
FIG. 3 ARTS INDIANA CURRICULUM EXAMPLE (SEPTEMBER-OCTOBER 1995)	75
FIG. 4 ARTS INDIANA CURRICULUM EXAMPLE (NOVEMBER 1995)	76
FIG. 5 BLOOM’S REVISED TAXONOMY	77
FIG. 6 <i>ARTS INDIANA MAGAZINE IN THE CLASSROOM</i> 1996-97 AGREEMENT FORM	85
FIG. 7 <i>ARTS INDIANA MAGAZINE IN THE CLASSROOM</i> 1996-97 PROGRAM INFORMATION FORM	86
FIG. 8 <i>ARTS INDIANA MAGAZINE IN THE CLASSROOM</i> 1995-96 EVALUATION FORM (PAGE 1)	87
FIG. 9 <i>ARTS INDIANA MAGAZINE IN THE CLASSROOM</i> 1995-96 EVALUATION FORM (PAGE 2)	88
FIG. 10 <i>ARTS INDIANA MAGAZINE IN THE CLASSROOM</i> 1995-96 EVALUATION FORM (PAGE 3)	89
FIG. 11 <i>ARTS INDIANA MAGAZINE IN THE CLASSROOM</i> 1995-96 EVALUATION FORM (PAGE 4)	90
FIG. 12 <i>ARTS INDIANA MAGAZINE IN THE CLASSROOM</i> 1996-97 PROGRAM INFORMATION FORM	93

CHAPTER I

INTRODUCTION

Background Information

Indiana's declining SAT scores prompted the publisher of a statewide magazine covering the literary, performing, and visual arts to take action and create a program to use the magazine as a supplemental resource for students. It was believed that such a supplemental resource could enhance critical thinking and writing skills and help raise SAT scores. Arts Indiana, Inc., a not-for-profit organization, provided the organizational structure that launched the *Arts Indiana Magazine in the Classroom* program and sought sponsors to cover its costs.

It was believed that by integrating arts—in a multi-disciplinary approach—directly into Indiana classrooms, the program could enhance critical thinking and writing skills.

From its 1990 beginning, Arts Indiana compiled information about its program from the teachers who used it. Annually, participating public and private school teachers completed Agreement, Program Information, and Evaluation forms, which collected information about how the program was used and asked for information about outputs from its use.

During 1990 and 1991, Arts Indiana, Inc. created, organized, and administered a pilot program for *Arts Indiana in the Classroom* (later called *Arts Indiana Magazine in the Classroom*) in four schools chosen for their diversity: public and private, junior and

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

senior high schools, art magnet and general curriculum, urban and rural areas of the state.

The pilot program followed three years of development, including questionnaires sent to Indiana humanities teachers and a workshop for selected teachers at the Indianapolis-Marion County Public Library in the summer of 1989. The enthusiasm with which the pilot program was adopted by teachers and students encouraged Arts Indiana, Inc. to expand the program to reach 40 schools during its second year. Arts Indiana, Inc. raised \$10,000 through special events and received an additional \$5,000 each from PSI Energy Foundation (now Cinergy Foundation) and Ball Foundation in 1991-92. Based on need and an increased number of sponsors, the program was expanded to include 80 schools during 1992-93 and 100 during 1993-94.

Each month during the school year participating teachers received a classroom set of *Arts Indiana Magazine* and, under separate mailing, *Highlights*, the teachers' guide (later called *Teaching Arts Now!!!*) with questions for written and oral discussion, suggestions for activities, and a vocabulary list, prepared by our Educational Outreach Committee of Indiana teachers and writers. It was designed to promote critical thinking and writing across the high school curriculum. Discussion activities examined cultural life as well as issues important to the arts—economic and legal concerns of artists, government funding of the arts, cultural diversity. Experience activities included trips within the state to experience museums, theaters, symphonies, dance, and other cultural endeavors.

Originally designed for one class of 25 students in each school, the program was often utilized by several teachers and many more students. Arts Indiana found that 25 of its issues could be studied by a minimum of 100 students and used as a resource by the

entire faculty at each school. Students took the magazines home—sometimes to share reading assignments with parents.

Michele Knecht, a Yorktown Middle School visual arts teacher noted:

I have been borrowing *Arts Indiana Magazine* from the Enrichment Coordinator, Bonnie McClain, in our school. I have often used it in the 8th grade art classes for the past year and have found its contents very useful in relaying current events, issues, and information. This year I will be teaching an Advanced Art elective which will be offered to 8th grade students.

We read and discuss articles in class. We often pose the question “What is Art?” and ask ourselves why certain artist’s works can or cannot be justified as art. Students have started to think about why artists make the decisions they do. They have begun to think of art as more than just paper, pencil, and paint. *Arts Indiana Magazine* has definitely broadened their horizons (Arts Indiana 1996, 33).

Philip Miller, a Columbus East High School visual arts teacher, reflected:

Arts Indiana Magazines are given to the Arts and the Performing Arts Department to maximize usage. Students read and write critical summaries of articles in each issue for credit on their grade. Each edition is a new opportunity. Students select their own article. (Certain subjects regarding museums such as the IMA [Indianapolis Museum of Art] are required before field trips.)

Conversations with and between students, references to specific articles, opinions against or for certain points of view, and comparison of written critiques demonstrate that students’ critical thinking and writing skills developed because of their participation in this program. Even the advertisements encourage students to check out new discoveries they read about each month. Students talk about what they read and discuss issues in art and use this magazine in other classes (Arts Indiana 1996, 33).

During the school year, Educational Outreach Committee members visited classrooms and met with teachers and students. An honorarium was given to the teacher who made the most creative use of the program and to the student who wrote the best essay demonstrating critical thinking and writing. At the end of the academic year teachers completed and returned evaluation forms designed to facilitate continued refinement of the program. In September 1992 the first annual teachers’ workshop was

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

held to refine the program and continue its evaluation with the recommendations of participating teachers.

Arts Indiana in the Classroom was found especially useful to teachers who use an interdisciplinary approach to the curriculum. It was used in English, history, and humanities history classes as well as a geography class taught from a cultural focus.

Signature School teacher Vella Goebel, used the resource in a Western Civilization class reported:

The course content is drawn from the humanities: literature, history, philosophy, art, music, and drama. Students study what we think of as “the big picture” of Western culture. Although we have excellent textbooks, they do not fully meet our needs. As a result, we have found *Arts Indiana Magazine* to fill a void in our curriculum, showing students that there *is* culture in Indiana (Arts Indiana 1996, 32).

Mary Malloy, a Penn High School creative writing teacher, got the idea to invite Indianapolis resident novelist Barbara Shoup to her class based on a review of Shoup's book, *Wish You Were Here*. During her presentation she told students “to be a writer one must know where you are, know where you are from, and see the stuff of stories wherever you go (Arts Indiana 1996, 32).” Because of this Malloy said that *Arts Indiana Magazine* help student acquire pride in where they are from.

A similar view from Anne Dowhie, Central High School, visual arts teacher:

This year the magazine was of particular value to my students because it provided a look at what is going on in the arts in our state at a time when my students were studying art history. The contrasts and connections that can be made between the art of the past and the present provide a valuable point of view. The perspectives and controversies discussed in *Arts Indiana Magazine* provide a more realistic view of the art world and the problems inherent in it.

Often I share the magazine with one of the English teachers here at Central. When I finish with them, I send them down to her room and she uses them to inspire essays on current events and other writing assignments. In this time of budget cuts, the magazine is often our connection to exhibits around the state that we cannot afford to visit except through the printed page (Arts Indiana 1996, 32).

Of course, teachers who commented that their students studied the ads and the design of the magazine as well as the content of the articles also used it in studio art classes. The diversity of this kind of use is illustrated in comments from Carolyn Lelek, Valparaiso High School graphics and computer graphics teacher:

Arts Indiana Magazine in the Classroom has been helpful to my teaching in at least three ways: First, in a specific article that my computer graphics class used about computer graphic artists in Indiana that I used as the structure for a lesson.

Second, the graphics in the advertising have been the basis for lessons in logos, in typestyle, and in business card design. They also are ideal for many other commercial and computer art applications. We have cut apart and pasted parts of *Arts Indiana Magazine* in searches for different categories of graphic elements: typestyles, pictorial or symbolic logo, graphic logo, and type layout examples.

Finally, *Arts Indiana Magazine* has proved very helpful to me in reinforcing a "Hoosier" identity in my students. Here in Northwest Indiana, we are deluged with Chicago-based information, and it is very helpful to have such a high quality representative of the arts in Indiana in the classroom (Arts Indiana 1996, 34).

Christopher Roe, Indiana Academy for Science, Mathematics and Humanities, taught Contemporary American Literature and Expository Writing using the program.

He used it with other supplemental resources:

I began the unit by bringing in copies of *Arts Indiana Magazine* and some of my own art books. I asked the students to select a work from one of the magazines or books and describe why they like or disliked it. This began our discussion of aesthetics. Next, we read some of the articles in *Arts Indiana Magazine*, which added multiple perspectives and generated discussion and some hot debate (Arts Indiana 1996, 34).

In 1994 a program manager was hired and wrote the curriculum with the advice of the Educational Outreach Committee.

Most teachers used the magazine as a basis for discussion, either orally or in writing using the *Highlights* as a guide. Students were encouraged to think abstractly: how does a piece of art—literary, visual, or performing—make one feel? Students were

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

asked to describe and/or interpret their feelings and to analyze and write critiques on topics relating specifically to the arts or to the larger issues brought to them through the arts. Students involved in these discussions or assignments were able to relate universal issues to their community and their lives (Arts Indiana 1994, 8-9).

Ball State University Professor Dr. Thomas Spoerner, used the program in his Introduction to Art Education class:

The art education curriculum at Ball State is strongly based on the philosophy of Discipline Based Arts Education (DBAE). Our students are strong in production, but need better ideas for teaching art history, art criticism, and aesthetics. *Arts Indiana Magazine* provides excellent material for these areas (Arts Indiana 1996, 34).

From the start Arts Indiana garnered state level support:

It is with pleasure that I endorse and support the educational program offered by the staff of Arts Indiana, especially *Arts Indiana in the Classroom: Highlights*. In addition to providing questions to develop students' skills in art criticism, art history, and aesthetics, its program can help open doors to integrating the arts with all subjects. Additionally, Arts Indiana can be instrumental in introducing students to the artistic richness of the state.

I am impressed not only with the quality of the magazine but by the staff's continual search for creative, innovating ways to expand the program and its services to students and teachers. I encourage you to use the excellent instructional tool, and to spread the word to others about the valuable resources.

N. Carlotta Parr
Fine Arts Consultant
Indiana Department of Education (Arts Indiana 1994, 10)

Support was also received from the Indiana Superintendent of Public Instruction:

May 1995

To Whom It May Concern:

I want to congratulate you and all those involved in providing *Arts Indiana Magazine in the Classroom* for the students in our Indiana schools. The arts build creativity and self-expression and are essential to the total development of children.

The project looks at the arts through in interdisciplinary lens. It is the only magazine in the country covering the literary, performing, and visual arts of the state. The magazine supports the development of students' critical thinking skills and raises the awareness of the power of visual images to communicate.

There are students who find it difficult to put their feelings into works, but who can express themselves through a visual art, music, drama, and movement. We need to offer them methods by which they can communicate their feelings.

Most students are inspired by art, history, and other cultures, and the magazine program, in some instances, is the only vehicle for transmitting information about music, painting, sculpture, poetry, literature, photography, film, video, and computer generated art to a student population outside of Indianapolis.

Good sources and ideas are always welcome in the classroom and appreciated by teachers. *Arts Indiana Magazine in the Classroom* is an excellent instructional tool and a valuable source of classroom enrichment.

Sincerely,

Dr. Sullen Reed
Superintendent of Public Instruction (Arts Indiana 1995, 26)

The program's was also valued by the state's largest school district:

January 30, 1995

To Whom It May Concern:

On behalf of the Indiana Public Schools, I am writing to express our support for the grant being submitted to the National Endowment for the Arts by Arts Indiana, Inc. I am the Instructional specialist for Art in the Indianapolis Public Schools, and I feel the funding for this proposal will offer our students in grades six through twelve such exceptional opportunities for increased educational and creative growth and development.

Since the passage of Goals 2000: Educate America Act, the arts are increasingly emerging as a focal point for interdisciplinary and cross-curricular educational experiences. In an effort to address these educational experiences in the Indianapolis Public Schools, it is the proposal of Arts Indiana that *Arts Indiana Magazine in the Classroom* be made available for instructional and curricular enhancement within the middle and high schools in our district.

This educational program seeks to improve much needed critical and creative thinking and writing skills, while at the same time, furthering the appreciation for the arts created and displayed within the State of Indiana. It should also be noted

that Arts Indiana is perhaps the only magazine through America that publishes statewide coverage on literary, performing, and visual arts achievements.

As a member of the Curriculum and Instruction Division, I am pleased to offer our support for what we feel is an exciting and contemporary interdisciplinary arts program of significant benefit to the students in the Indianapolis Public Schools.

Respectfully,

Constance B. Palmer,
Instructional Specialist for Art, Curriculum and Instruction Division
Indianapolis Public Schools (Arts Indiana 1995, 27)

The perception of helping with critical thinking was noted by Central Catholic High School's Cecilia Johnson, who taught Art Exploration, Computer Graphics, Painting, Ceramics, and Drawing classes with the program:

Thank you for supporting the arts and the fostering of critical thinking skills in high school students. Your magazine is a tremendous help in looking at, art production, but art history, art criticism, and aesthetics (the four components of discipline-based art education). It is sometimes hard for teachers to move from art production to talking and thinking about art, and *Arts Indiana Magazine* facilitates this pedagogical shift (Arts Indiana 1996, 34).

Indianapolis Public Schools also participated by creating:

Vision Statement for Arts Indiana Magazine in the Classroom:

Arts Indiana Magazine in the Classroom program represents a public-private partnership made up of schoolteachers, students, *Arts Indiana Magazine* staff members, and sponsoring agencies or individual patrons. Together, they support a pioneering effort in Indiana to make art the focal point for the development of critical writing and thinking skills for Indiana students.

While sustaining its focus, this interdisciplinary arts education enrichment tool also introduces students to the manner in which messages are transmitted, their impact on thinking, and how the presentation of information affects their prejudices and opinions.

The growth of this essentially grass roots program has taken place by word of mouth from one teacher to another. The program has grown from a pilot program used in four schools in 1990 to serving 3,000 students in 109 classrooms around the state.

Past evaluations have demonstrated that using *Arts Indiana Magazine* as an interdisciplinary tool improves thinking and writing skills of students who normally fall far below accepted levels in formalized teaching situations as well as enriching regular classroom curriculum. We feel the application of the program as an enrichment tool could have a measurable effect on Indianapolis Public School students where the program is currently used in only five IPS schools. We also think the utilization of the program as stated in the proposal would heighten the awareness of IPS students to their own potential in the arts and elsewhere.

Ann M. Stack, CEO and Publisher, Arts Indiana, Inc.
Duncan Pritchett, Interim, Superintendent, Indianapolis Public Schools
Helen Ferrulli, Program Director, *Arts Indiana Magazine in the Classroom* (Arts Indiana 1995, 28)

The seemingly ubiquitous use of Arts Indiana was evident in Linda Brookshire's application. She taught Indiana University-South Bend English Methods, Reading Methods, and Summer Writing Workshop classes using the program as well as in South Bend Community School Corporation inservices:

Arts Indiana Magazine is put to much use in the course of a semester/year. First, I used it with undergrad/pre-service teachers at the university as part of their English Methods coursework. Next, I use it in workshops with teachers as an indication of how they might use a writing/reading approach to the curriculum, make art-language connections, use a thematic approach to tie language, social studies, etc. together. And then finally, the issues are distributed to other teachers in the system to use in their classrooms with students who may eventually keep them (Arts Indiana 1996, 33).

Mary L. Dawald, Northridge Middle School art, photography, and computer graphics teacher emphasized the importance of the resource being provided by sponsors: "Last year our library received no funds or periodicals. If we did not receive your magazine we would have nothing (Arts Indiana 1996, 33). She is now principal at Pleasant Hill Elementary, which feeds into her former school.

Arts Indiana was committed to furnishing the accessibility to the arts through means that are visually and intellectually stimulating. It promoted the communication of

culture and knowledge to inspire informed participation and dialogue about the arts in Indiana. Its education program was an extension of that philosophy.

It used the up-to-date magazine content to encourage critical thinking and writing in the classroom while it provided the opportunity to explore interdisciplinary subject matter as well. Promoted mostly through word of mouth, the program expanded to an increased enrollment of 100 schools in 1993-94.

A collaboration, support of the program came in part from corporations, other not-for-profit institutions, and individuals whose vision results from an appreciation for the arts and a recognition of the importance of critical thinking to the future of Indiana and society at large (Arts Indiana 1994, 4-5). The Indiana Arts Commission and Arts Council of Indiana also provided public funding for the program.

Arts Indiana Magazine in the Classroom's staff and advisors created:

Pedagogical Justifications for the Use of *Arts Indiana in the Classroom*

The role of the arts in Indiana secondary schools has diminished since the decision to consider the arts as only one of several electives rather than a high school graduation requirement. Schools continue to make the decision not to hire arts specialists because such expenditures cannot be justified lacking the requirement of art for graduation.

In an impoverished learning environment, arts curriculum becomes the responsibility of the classroom teacher. The interdisciplinary approach of the magazine in the program makes it easy for teachers to incorporate *Arts Indiana Magazine* into any course. The magazine also offers much needed information as an arts and literary resource. In addition, the "Highlights" study guide assists teachers whose training in the arts has not changed despite the desire of many school faculty to integrate the arts, as part of the humanities, into classroom studies.

Outside of journalism courses, very few other educational vehicles introduce students to the manner in which messages are transmitted, their impact on their thinking or how the presentation of information fashions ideas. For example, the interview format, which uses a primary source, the person, for data can be a much more effective tool for communicating ideas than interpreting or reporting facts. In the *Highlights* student guide students are encouraged to think critically about these concepts as well as write about them.

During the school year students become acquainted and discuss issues that affect the arts such as the debate over censorship and funding for the arts, changes in directorship of the National Endowments, artist's support of causes such as AIDS and aesthetic and ethical problems in the translation of information from one art form into another. Basing the program on up to date facts in a monthly magazine keeps students current in discussion and writing about the arts.

Knowledge of arts events and contemporary Indiana artists also expands students' appreciation for the arts of their own state and contributes to their growing awareness of performances, exhibitions, and other arts-related events in their communities. Countless reviews and features such as articles on the paintings of Indiana born rock star John Mellencamp, the Indianapolis White River Grain Silo controversy, and the young and talented Indianapolis photographer Carl Pope have significant appeal to students while providing substantial coverage of contemporary Indiana culture.

More importantly, *Arts Indiana Magazine in the Classroom* and its study guide contribute to the "principal means of understanding human experiences and of transmitting human values" the Getty Center for Education in the Arts has defined as the purpose of arts education's programs. More than a simple reporting of arts events, the combination of magazine and study guide lead students to consider a commitment to an artistic vocation and the spiritual value of art. Student awareness is increased in understanding the experience of being an artist and producing art along with a consideration of artistic achievement in the long history of mankind. Discussing issues such as the public role of the university, the meaning of being a writer, musician, poet, dancer, or the relationship of contemporary life to cultural endeavors often lead to the formulation and assertion of values.

One of the most significant assertions of the late 20th century educational theory has been Howard Gardner's recognition that strategies from the past focusing on only one type of learning skill is limiting students. Gardner's "Project Zero" paradigm provided a model for non-linear-based knowledge. His definitions of the different kinds of learning skills utilized by a culture, nurture the construction of meaning. The *Arts Indiana Magazine in the Classroom* combination of study guide and magazine demonstrates how and why the different art forms relate, raising students' awareness of the inter-relatedness of other subject matter also. Rather than underscoring simple factual answers, the program assists students in evaluating, analyzing, and making independent critical judgments on the information presented to them in the magazine and asserting them in written or oral discussion.

Arts Indiana Magazine in the Classroom uses art forms as a gateway to understanding the challenges and issues facing diverse populations. To foster understanding students have been asked to compare the political content of poetry of African-American poets with that of Latin American painters. They have also been asked to contrast the legacy of European classical music and African-

American music. Features emphasizing the marginalization of the artistic production of “minority” communities are confronted in the study guide with census facts announcing the Caucasian cultures will be the minority by 2010. Although focused on the arts of Indiana, *Arts Indiana Magazine in the Classroom* is one of the few forums that offer students the opportunity to understand how these issues relate to the broader environment (Arts Indiana 1995, 10-11).

By the program's fifth anniversary, the program was gaining national attention.

From the U.S. Secretary of Education:

April 1996

President Clinton has stated the he is committed to keeping the arts “flourishing in every community and every neighborhood,” so that we may “fire the imaginations of children all over America.” Studying fine arts motivates students to explore cultural differences, enhances their creativity, encourages self-discipline and persistence, helps them to succeed in other academic disciplines, and eventually prepares them for the workplace.

I also regard artistic expression as important for students in the development of our society as a whole. To the rest of the world, we seem to be a nation consumed by a passion for expression, be it through music, film, theater, or dance; arts in education elevates and gives structure to that passion for expression and connection. That is why we made a special effort to include the arts in the Administration's education reform program, “Goals 2000: Educate America Act,” which was signed into law in March 1994. The program, which supports the creation of world-class voluntary standards that challenge all students, will enable the Federal government to provide information to educators and students so they will know what world-class standards are, what they have to do to reach them, and how much progress they are making. In our society and in education, the use of the arts can be learning tool to broaden young people's view of society. Initiatives like yours can serve as important catalysts for fostering school reform, education excellence, and understanding of the arts community-wide.

Congratulations on your fifth anniversary, and best wishes.

Richard W. Riley, Secretary of Education
United States Department of Education
600 Independence Ave., S.W.
Washington, DC 20202-0100 (Arts Indiana 1996, 29)

From the Office of Elementary and Secondary Education:

March 13, 1996

I read your Arts Indiana Magazine in the accompanying year-end report with amazement and pleasure. The ability you have shown to involve people at all levels throughout the state, the way you work directly in the schools, and the professional quality of all that I saw: for all these things you have my personal congratulations.

Sincerely,

Mary Jean LeTendre, Director
Compensatory Education Programs
United States Department of Education
Office of Elementary and Secondary Education
400 Maryland Ave., S.W.
Washington, DC 20202 (Arts Indiana 1996, 30)

The Indiana Governor echoed the Federal accolades:

April 10, 1996

It is through the arts that we define ourselves in a society. Indiana is fortunate to have this magazine and its clear expression of the importance and diversity of the arts and the role the arts play in the lives of Indiana citizens.

Most people are inspired by art, music, literature, theater and this magazine has helped to foster creativity, critical thinking and writing while familiarizing our young people and their teachers with the arts in their local communities and in Indiana. I hope that we can continue to benefit from this excellent publication. Again, thank you for bringing good ideas and sources to the classrooms of our state.

Sincerely,

Evan Bayh, Governor
Office of the Governor
Indianapolis, IN 46204-2797 (Arts Indiana 1996, 31)

The interdisciplinary approach to *Arts Indiana Magazine in the Classroom* made it convenient for teachers to use the program across the curriculum. It was easily adapted to teachers' individual style, the curriculum, and the level of education and accomplishment of each student.

Arts Now!!! teacher/student guide was introduced in the fall of 1995. It contained questions, which promoted critical thinking: description, analysis, interpretation, and

judgment. Those questions were easily adapted and integrated into four universally accepted methods of teacher: the communication of information, discussion, coaching, and the “what if” style of self-discovery.

The magazine held itself out to be a “one-of-a-kind resource” for in-depth information about the literary, performing, and visual arts in contemporary Indiana (Arts Indiana 1996, 12).

During the 1995-1996 academic year teachers using the program were interviewed about how they used it. The interviews were taped and verbatim transcripts made and are contained on more than 1,000 pages. Teachers often described and provided samples of lesson plans, student work, and other samples of how they used the program. These descriptions and copies of the samples were included in and with the transcripts.

Prior to this study there had been no analysis of this information. The program's on going assessment was done through “evaluations and anecdotal information provided by participating teachers (Arts Indiana 1996, 12).” Information was collected to “keep in touch” with the program users and to gather success stories and testimonials to attract sponsors. (Corporate, individual, and government-entity sponsors underwrote expenses and the program was provided at no monetary cost to teachers.)

This study gathered evidence from the Agreement, Program Information, and Evaluation forms along with anecdotal evidence contained in the transcripts to judge the impact that an arts-based supplemental resource has on teachers' perception of curriculum integration, instructional materials development, classroom learning activity selections, and student critical thinking improvement.

An Arts-Based Supplemental Resource’s Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

The program garnered four national awards in four years—1995-1998. It received three consecutive Community Action Network awards—recognizing media for finding solutions to social problems—and an “America Goes Back to School” citation from U.S. Secretary of Education Richard Riley.

Arts Indiana Magazine in the Classroom was last offered during the 2000-2001 school year when the necessary philanthropic support for the organization could no longer support it.

This study gathered evidence from the information submitted to Arts Indiana by the following teachers:

Table 1. Arts Indiana Participating Teachers Whose Information Submitted to Arts Indiana Was Used in This Study.

No.	Teacher Last Name	Teacher First Name	Subject Area	School/Organization Name	School Community	School County
1	Antonelli	Kay	Visual Arts	Logansport Community HS	Logansport	Cass
2	Armstrong	Tony	Language Arts	North Central HS	Indianapolis	Marion
3	Ashcarft	Ellen	Library	Robert Frost ES	Indianapolis	Marion
4	Barker	Sondra	Visual Arts	Attica Jr./Sr. HS	Attica	Fountain
5	Barrett	Jo	Performing Arts	Yorktown MS	Yorktown	Delaware
6	Beattie	Barbara	Visual Arts	Park Tudor School	Indianapolis	Marion
7	Behnke	Joyce	Visual Arts	Michigan City Jr. HS	Michigan City	LaPorte
8	Bennett	Don	Special	Northwestern Jr. HS	Kokomo	Howard

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

			Education			
9	Bennett	Karen	Language Arts	Ben Davis HS	Indianapolis	Marion
10	Birk	Samantha	Adult Education	Fort Wayne Museum of Art	Fort Wayne	Allen
11	Black-Libby	Twila	Visual Arts	Vincennes Lincoln HS	Vincennes	Knox
12	Boltin	Elaine	Visual Arts	Christ the King School	Indianapolis	Marion
13	Bower	Rhonda	Language Arts	Central HS	Monroe	Adams
14	Brewer	Eleanor	Visual Arts	Southmont HS	Crawfordsville	Montgomery
15	Brookshire	Linda	Business Education and District Inservice	Indiana University at South Bend and South Bend Community School Corp. (dual assignment)	South Bend	St. Joseph
16	Brown	Debra	Elementary	Robert Frost ES	Indianapolis	Marion
17	Burrell	Diane	Visual Arts	Daleville Jr./Sr. HS	Daleville	Delaware
18	Byrne	Martha	Performing Arts	Lawrence North HS	Indianapolis	Marion
19	Cambridge	Barbara	Language Arts	Indiana University-Purdue University at Indianapolis	Indianapolis	Marion
20	Cancilla	Joe	Language Arts	Brebeuf Jesuit Preparatory School	Indianapolis	Marion
21	Chappell	Paula	Visual Arts	Rossville Consolidated School	Rossville	Clinton
22	Chary	Diane	Language Arts	River Forest Jr./Sr. HS	Hobart	Lake
23	Chilman	Karen	Visual Arts	William H. English MS	Scottsburg	Scott

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

24	Christman	David	Performing Arts	Harmony School	Bloomington	Monroe
25	Clark	Ron	Language Arts	Highland HS	Anderson	Madison
26	Clay	Kay	Visual Arts	Emmerich Manual HS	Indianapolis	Marion
27	Cole	Carolyn	Visual Arts	Weisser Park School	Fort Wayne	Allen
28	Collier	Katy	Visual Arts	Westfield Washington HS	Westfield	Hamilton
29	Craig	Carolyn	Visual Arts	Southwestern HS	Shelbyville	Shelby
30	Cupp	Mike	Language Arts	North Central HS	Indianapolis	Marion
31	Davis	Nikki	Language Arts	Westfield Washington HS	Westfield	Hamilton
32	Davis	Susan	Language Arts	Arsenal Technical HS	Indianapolis	Marion
33	Dawald	Mary Lou	Visual Arts	Northridge MS	Crawfordsville	Montgomery
34	Dougherty	Wendy	Visual Arts	Northview MS	Indianapolis	Marion
35	Dowhie	Anne	Visual Arts	Central HS	Evansville	Vanderburgh
36	Drake	Cheryn	Language Arts	Valparaiso HS	Valparaiso	Porter
37	Elrod	Vickie	Visual Arts	Anderson HS	Anderson	Madison
38	Evans	Claudia	Language Arts	H.L. Harshman MS	Indianapolis	Marion
39	Fedroff	Greg	Language Arts	Decatur MS	Indianapolis	Marion
40	Ferguson	Cathy	Visual Arts	Tipton HS	Tipton	Tipton
41	Flanigan	Judy	Visual Arts	Connersville Jr. HS	Connersville	Fayette
42	Foley	Michael	Language	Washington HS	South Bend	St. Joseph

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

			Arts			
43	Foster	Clyde	Visual Arts	Warren Central HS	Indianapolis	Marion
44	Freer	Raymond	Visual Arts	Anderson University	Anderson	Madison
45	Goebel	Vella	Language Arts	Signature School	Evansville	Vanderburgh
46	Greer	Louis	Visual Arts	Hanover Central HS	Cedar Lake	Lake
47	Grogg	Julia	Visual Arts	Bellmont HS	Decatur	Adams
48	Handley	Elizabeth	Visual Arts	Connersville Jr. HS	Connersville	Fayette
49	Hankins	Jana	Visual Arts	Wainwright MS	Lafayette	Tippecanoe
50	Hanson	Marilyn	Visual Arts	Valparaiso HS	Valparaiso	Porter
51	Headen	Sarah	Visual Arts	Switzerland County Jr./Sr. HS	Vevay	Switzerland
52	Helbing	Kathleen	Social Studies	Roncalli HS	Indianapolis	Marion
53	Henry	Jamie	Visual Arts	Lawrence Central HS	Indianapolis	Marion
54	Higdon	Susan	Visual Arts	Floyd Central Jr. HS	Floyds Knobs	Floyd
55	Houser	Aleta	Language Arts	Arsenal Technical HS	Indianapolis	Marion
56	Houston	Kathy	Visual Arts	Shortridge MS	Indianapolis	Marion
57	Hudson (Adamiak)	Sandra	Language Arts	Pendleton Heights HS	Pendleton	Madison
58	Hunter	Kay	Visual Arts	Covington HS	Covington	Fountain
59	Hunter	Vicki	Language Arts	Paul Hadley MS	Mooresville	Morgan
60	Hurt	Larry	Visual Arts	Ben Davis HS	Indianapolis	Marion
61	Johnson	Cecilia	Visual Arts	Central Catholic HS	Lafayette	Tippecanoe
62	Jones	Rick	Performing	Center Grove HS	Greenwood	Johnson

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

			Arts			
63	Komosa	Gloria	Visual Arts	River Forest Jr./Sr. HS	Hobart	Lake
64	Kawasaki	Kuniko	Visual Arts	Anderson HS	Anderson	Madison
65	Knecht	Michele	Visual Arts	Yorktown MS	Yorktown	Delaware
66	Kopenec	Donald	Language Arts	Donald E. Gavit HS	Hammond	Lake
67	Lake	Beth	Language Arts	Franklin County HS	Brookville	Franklin
68	Lamie	LuAnn	Visual Arts	Jefferson HS	Lafayette	Tippecanoe
69	Landaw	Susan	Language Arts	North Central HS	Indianapolis	Marion
70	LaPrees	John	Visual Arts	Broad Ripple HS	Indianapolis	Marion
71	Lausch	Carolyn	Language Arts	Brebeuf Preparatory School	Indianapolis	Marion
72	Lelek	Carolyn	Visual Arts	Valparaiso HS	Valparaiso	Porter
73	Leonard	Karen	Language Arts	North Central HS	Indianapolis	Marion
74	Lile	Michael	Visual Arts	Ben Davis HS	Indianapolis	Marion
75	Litts	Glen	Visual Arts	New Augusta Public Academy	Indianapolis	Marion
76	Lovejoy	Kim Brian	Language Arts	Indiana University-Purdue University at Indianapolis	Indianapolis	Marion
77	Lowenstine	Jane	Visual Arts	Portage HS	Portage	Porter
78	MacIsaac	Alicia	Visual Arts	Northridge MS	Crawfordsville	Montgomery
79	Marshall	John	Performing Arts	Pike HS	Indianapolis	Marion
80	Mathias	Harold	Visual Arts	Daleville Jr./Sr. HS	Daleville	Delaware

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

81	Mautz	Nancy	Social Studies	Signature School	Evansville	Vanderburgh
82	McCabe	Cynthia	Visual Arts	Seeger Jr./Sr. HS	Lebanon	Warren
83	McCormick	Sheila	Visual Arts	Crawfordsville HS	Crawfordsville	Montgomery
84	McCracken	Shawn	Visual Arts	Rossville Consolidated School	Rossville	Clinton
85	Middleton	Teresa	Language Arts	Ben Davis HS	Indianapolis	Marion
86	Miller	Philip	Visual Arts	Columbus East HS	Columbus	Bartholomew
87	Mitchells	Lynn	Visual Arts	Michigan City Jr. HS	Michigan City	LaPorte
88	Moehring	Susan	Visual Arts	Delta HS	Muncie	Delaware
89	Morehouse	Vivian	Visual Arts	Southport MS	Indianapolis	Marion
90	Newland	Tony	Elementary	Maplewood ES	Indianapolis	Marion
91	Nicolini (Malloy)	Mary	Language Arts	Penn HS	Mishawaka	St. Joseph
92	Nolan	Melissa	Visual Arts	Pike HS	Indianapolis	Marion
93	Nugent	Sheryl	Mathematics	Edison Jr. HS	Lake Station	Lake
94	Oldenburg	Linda	Visual Arts	Merrillville HS	Merrillville	Lake
95	Overmeyer	Mary	Visual Arts	Paul Harding HS	Fort Wayne	Allen
96	Parmer	Angie	Visual Arts	Shelbyville Senior HS	Shelbyville	Shelby
97	Pecen	Carolyn	Language Arts	Kokomo HS	Kokomo	Howard
98	Petty	Susan	Visual Arts	Evansville Day School	Evansville	Vanderburgh
99	Pierce	Rodger	Visual Arts	Avon MS	Indianapolis	Marion
100	Porterfield	Marianita	Visual Arts	Roosevelt HS	Gary	Lake
101	Prince	Eileen	Visual Arts	Sycamore School	Indianapolis	Marion
102	Purtee	Mary Jo	Language	Knightstown HS	Knightstown	Henry

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

			Arts			
103	Richards	Lance	Language Arts	Lanesville HS	Lanesville	Harrison
104	Roe	Christopher	Language Arts	Indiana Academy for Science, Mathematics and Humanities	Muncie	Delaware
105	Rudd	Gary	Visual Arts	Fort Wayne Museum of Art	Fort Wayne	Allen
106	Ryan	Craig	Visual Arts	Noblesville HS	Noblesville	Hamilton
107	Schap	Shari	Language Arts	Central Catholic HS	Lafayette	Tippecanoe
108	Schein	Allison	Visual Arts	Westfield Washington HS	Westfield	Hamilton
109	Scott	Susan	Visual Arts	Connersville HS	Connersville	Fayette
110	Seward	David	Visual Arts	Pike HS	Indianapolis	Marion
111	Shadle	Deborah	Visual Arts	Blackford HS	Hartford City	Blackford
112	Shake	Nancy	Visual Arts	Center Grove HS	Greenwood	Johnson
113	Shannon	Sally	Elementary	North Grove ES	Greenwood	Johnson
114	Shartzler	Karen	Performing Arts	White Lick ES	Brownsburg	Hendricks
115	Sinclair	Christi	Language Arts	Ben Davis HS	Indianapolis	Marion
116	Slattery	Jan		Anderson HS	Anderson	Madison
117	Snearly	Patty	Visual Arts	Frankfort MS (Frontier HS—later assignment)	Frankfort (Chalmers— later assignment)	Clinton (White—later assignment)
118	Southworth	Rosemarie	Elementary	Robert Frost ES	Indianapolis	Marion

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

119	Spangler	Joe	Adult	Marion County Community Corrections Center	Indianapolis	Marion
120	Spoerner	Thomas	Visual Arts	Ball State University,	Muncie	Delaware
121	Steill	Laurel	Language Arts	Columbia City HS	Columbia City	Whitley
122	Sundheimer	Jet	Visual Arts	Western HS	Russiaville	Howard
123	Swayze	Kathleen	Performing Arts	Westlane MS	Indianapolis	Marion
124	Szymanski	Cynthia	Library	Indiana University Northwest	Gary	Lake
125	Teuschler	Julia	Gifted and Talented	Brookville MS	Brookville	Franklin
126	Treichman	Janet	Visual Arts	Marian College	Indianapolis	Marion
127	Uebelhor	Curtis	Visual Arts	Perry Heights MS	Evansville	Vanderburgh
128	VanDuyne	Ann	Elementary	Washington ES	Warsaw	Kosciusko
129	Walker	Judith	Visual Arts	Shortridge MS	Indianapolis	Marion
130	Wallace	Karen	Visual Arts	Floyd Central HS	Floyds Knobs	Floyd
131	Webb	Cynthia	Language Arts	Paoli HS	Paoli	Orange
132	Weigold	Laura	Visual Arts	Pierceton ES, Pierceton and South Whitley ES (dual assignment)	Pierceton and South Whitley (dual assignment)	Kosciusko and Whitley (dual assignment)
133	Weyer	Sandra	Language Arts	Washington HS	South Bend	St. Joseph
134	Williams	Carole	Visual Arts	Shawe Memorial HS	Madison	Jefferson

An Arts-Based Supplemental Resource’s Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

			and Language Arts (dual assignment)			
135	Wilson	Corrie	Visual Arts	Broad Ripple HS	Indianapolis	Marion
136	Wilson	Jennifer	Visual Arts	Waldron Jr./Sr. HS	Waldron	Shelby
137	Windsor	LeAnn	Visual Arts	Daleville Jr./Sr. HS	Daleville	Delaware
138	Winhusen	Joe	Visual Arts	Broad Ripple HS	Indianapolis	Marion
139	Wright	Vicki	Elementary	Canterbury School	Fort Wayne	Allen
140	Young	Dorothy	Visual Arts	Shortridge MS	Indianapolis	Marion
131	Yovanovich	Andrea	Audiology	Vernon HS, Fortville	Fortville	Hancock
142	Zehr	Brian	Language Arts	Edison Jr. HS	Lake Station	Lake

Statement of the Problem

Indiana’s declining SAT scores prompted the publisher of a statewide magazine covering the literary, performing, and visual arts to take action by creating a program to use the magazine as a supplemental resource for students. It was believed that such a supplemental resource could enhance critical thinking and writing skills and help raise SAT scores. Arts Indiana, Inc., a not-for-profit organization, provided the organizational structure that started the *Arts Indiana Magazine in the Classroom* program and partnered with sponsors to cover its costs.

A goal of the classroom program’s objectives was to enhance critical thinking and writing skills by integrating the arts directly into Indiana classrooms in a multi-disciplinary approach.

Purpose of the Study

This study showed the ways in which a supplemental resource is used affects teachers' perceptions of curriculum integration, instructional materials development, classroom learning activity selections, and student critical thinking improvement. It revealed similarities and differences among use between grade levels and subject areas. It revealed the similarities and differences of use among teachers who used an accompanying teacher/student guide and those who did not. This study's literature review showed the value that various kinds of arts instruction and arts integration provided to the critical thinking skills development of students.

Research Problem

There is less arts accessibility and availability in private schools, many of which are faith-based and operate as Christian ministries or extensions of parish ministries.

According to demographics from Dunn & Bradstreet there are nearly two arts teachers per public school in the United States. Private Catholic schools have the equivalent of 0.87 teacher per school and private non-Catholic schools have the equivalent of 0.53 teacher per school. These figures combine music, visual art, and dance teachers serving in these schools (Dunn & Bradstreet 2004).

This study, through its literature review, demonstrated the value of arts instruction and arts integration to the critical thinking skills development of students. This study, through its qualitative analysis of the *Arts Indiana Magazine in the Classroom* program, demonstrated that an arts-based supplemental resource has an impact upon teachers' perceptions in the areas of curriculum integration, instructional materials development,

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

classroom learning activity selection in grades K-12 arts and non-arts courses, and student critical thinking improvement.

The Bible is filled with the arts—from architecture to music to poetry. To have access to the arts sequestered in Christian schools is denying students a dimension of education that can be directly related to scripture.

This research supported an alternative way in which to introduce more arts instruction and integrate more arts subject matter in private schools, particularly faith-based schools with a Christian orientation.

The arts are emblematic of God's creative nature that He instilled into man. It was a passion for J.S. Bach to celebrate this nature that made him identify each composition—including those written on secular themes—as “for the glory of God alone (Kalas 2001, 94)

This study demonstrated that the arts can be (and should be) offered in their school even when funding choices exclude optimal staffing and by using an arts-based supplemental resource, every teachers can become an arts specialist; something that should be of interest to private school administrators, teachers, and parents.

Arts Indiana reported that it was the only publication that covered the literary, performing, and visual arts in one state (Arts Indiana 1996). Similar publications, *Arts New England* and *New Art Examiner*, provided regional and national coverage.

Therefore, the *Arts Indiana Magazine in the Classroom* program connected teachers and students through its supplemental curriculum resource with the literary, performing, and visual arts of Indiana. *Arts New England* and *New Art Examiner* did not have educational outreach programs.

The uniqueness of *Arts Indiana* contributes to the uniqueness of any study of its educational outreach program. Beyond that, most research of arts in education has focused on integration causing outcomes and not connections having impact.

Some integration studies have been broad—dealing with all arts students in a given population having greater self-esteem—and other have been more specific—piano instruction raising math ability.

Impact on self-esteem has been evidenced in studies that revealed arts students were less disruptive (National Center for Education Statistics 1992) and that the self-concept of at-risk students involved in the arts increased over non-arts at-risk students (Barry 1992).

Impact of the arts on mental ability was demonstrated by pattern recognition and mental representation scores that improved significantly for students given piano instruction during a three-year period (Costa-Giomi 1998, April). There is also data finding significant improvements in the spatial temporal IQ scores of arts participants contrasted with non-arts participants (Rauscher et al 1994, 1997, 1-8; Gromko and Poorman 1998, 171-181; Rauscher and Zupan 1999). “The relationship between music and spatial reasoning was so strong that simply listening to music can make a difference (Campbell 2001.”

A Los Angeles County study concluded the more arts work a high school student took; generally speaking, the higher his or her SAT scores were (Watanabe 1989, 1-2). SAT evidence included students with coursework or experience in music performance scored 57 points higher on verbal and 41 points higher on math and students in music

appreciation score 63 points higher on verbal and 44 points higher on math “than did students with no art participation (the College Entrance Examination Board 2001).

A study of the results of balancing the arts with other learning areas in the curriculum showed that where 25percent of more of the curriculum is devoted to arts courses, students acquire academically superior abilities (Perrin 1994).

Physician and Biologist Lewis Thomas, who studied the undergraduate majors of medical school applicants, found that 66 percent of music majors who applied to medical school were admitted, the highest percentage of any group. By comparison, 4 percent of biochemistry majors were admitted (Miller and Coen 1994, 459-461).

Students who were given an enriched, sequential, skill-building music program showed marked improvement in reading and math skills (Gardiner et al. 1996, 284). Arts programs that included reading also increased reading abilities among students who had been reading at below-grade levels (G. McGuire 1984, 835-839). Students experiencing a music curriculum demonstrated improvement in accuracy and fluency for auditory temporal tasks, an increase in auditory visual integration skills, and higher phonemic awareness scores (Bowles 2003, 5).

A study of 237-second grade children who used piano keyboard training with newly designed math software demonstrated improvement in math skills. The group scored 27 percent higher on proportional math and fractions tests than children who used only the math software (Graziano, Peterson, and Shaw 1999). It also included an analysis of 25,000 secondary school students (part of the National Education Longitudinal Survey) who showed consistent high levels of involvement in the arts throughout the

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

middle school and high school years also showed “significantly higher levels of mathematics proficiency by grade 12 (Catterall, Chapleau, and Iwanaga 1999).

Arts Indiana was part of a study of 22 programs offering supplemental resources conducted in collaboration between Lincoln Center Institute, the Aesthetic Education Institutes, and Harvard Project Zero (Simmons 1996, 4). This study focused on program offerings and delivery and not on curriculum impact or learning activity selection.

In light of so many curricular infusions of the arts in which outcomes are measured, the research problem, according to the perceptions of teachers who signed up to use *Arts Indiana*, is: how did their use affect their curriculum integration, instructional materials development, classroom learning activities selections, and student critical thinking improvement?

Though the publication is currently on hiatus as its organizers attempt to publish an online version until funds can be raised to resume printing, the magazine's editor-in-chief found the research essential:

I'm glad to know that you're still pursuing graduate work in the area of arts education using data from research on the *Arts Indiana in the Classroom* program. As you know, Arts Indiana is keenly interested in data that might definitely suggest a link between arts education and critical thinking. The magazine has received a great deal of funding based on the premise that the magazine is an effective classroom tool, not only in nurturing tomorrow's arts audiences, but also in enhancing efforts to teach students to think critically across curricula. Students who excel in music, for instance, have been shown to do better in math.

Once your results are tabulated and your thesis is complete, we are hopeful that you will allow us to use the information in building the magazine's support base once again. The magazine is pursuing an online version until sufficient funds can be sought to bring the publication back into print. Certainly your research will be part of that building process. I personally hope to be instrumental in that process.

Many thanks for your good work, and for getting in touch.

Sincerely,

Julie Thibodeaux, Editor-in Chief,
Arts Indiana (on hiatus)
Julianna Thibodeaux, Writer & Editor
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Dr. Suellen Reed, Indiana's Superintendent of Public Instruction, and an early support of *Arts Indiana Magazine in the Classroom*, also found merit and worth in the research:

I have reviewed your proposal and believe that your work in this area will be very helpful. Because of issues of shortages in time and money facing schools today, many schools either have chosen to spend less of each on the arts, or may still be considering doing so. Although, they are obligated by law to present students with a balanced curriculum, some are cutting corners where latitude is allowed. The supplemental publication that you are using in the study might help us in addressing this problem in the future. This is particularly important in the light of the possibility of your reviving the publication. We could help you encourage its use by the very information that you discover in your research.

Thank you for you continuing good work.

Sincerely,

Suellen Reed
Superintendent of Public Instruction (D. Suellen Reed, pers. comm. 2005)

Initial Research Question

According to the perceptions of teachers who signed up to use a monthly arts-based supplemental resource, *Arts Indiana*, how did their use affect their curriculum integration, instructional materials development, classroom learning activities selections, and student critical thinking improvement?

Subsidiary Questions

1. Comparing teachers who used the *Arts Indiana* Teacher/Student Guides with those who did not in both the arts and non-arts subject areas, what were the similarities and differences in student-created writing and drawing?
2. Comparing teachers who used the *Arts Indiana* Teacher/Student Guides with those who did not in three broad grade levels (elementary, middle, and secondary), what were the similarities and differences in student-created writing and drawing?
3. Comparing teachers who used the *Arts Indiana* Teacher/Student Guides with those who did not, what were the similarities and differences in their perceptions of student critical thinking improvement?
4. According to teachers' self-reports, how did their use of *Arts Indiana* affect curriculum integration, instructional materials development, and learning activities selections?

Assumptions, Limitations, Delimitations

Assumptions

The study assumes that teachers were honest and forthcoming with their comments about the resource and their use and implementation of it in the interviews and written annual evaluations as contained in the transcribed interviews. It is important to note that since this resource was provided at no cost to the teacher, school, or school district that some teachers might “tell the provider what he or she wanted to hear” in

order to avoid what might be a perceived penalty of losing the resource if comments were negative.

There is a lot of variety in the teacher interview transcripts. While similar questions were asked, often teachers would address the topics they had on their agenda. The transcripts reveal that teachers were allowed to finish their conversations and guided back to original questions.

Limitations

A major limitation of this study is the age of its data. Since *Arts Indiana Magazine in the Classroom* operated 1990-1991 through 2000-2001, the data ranges from 5 to 16 years old. The researcher believes that there is a timelessness to the data as this study sought to determine, according to the perceptions of teachers who signed up to use the program, how their use affected their curriculum integration, instructional materials development, classroom learning activities selections, and student critical thinking improvement.

The study showed these perceptions gathered from 11 years of data. During this period Arts Indiana compiled anecdotal evidence from teachers, students, sponsors, administrators, and government leaders. It also documented raw data of teachers, schools, subject areas, etc.

Throughout this period, there was no analysis the program's information. However, these were the data and facts from this period. This study sought to perform such an analysis, which is of interest to the magazine's current editor-in-chief and the Indiana's Superintendent of Public Instruction.

Preliminary data from this study was presented at the 2005 Midwest Scholars Conference. Produced by Grace College, Indiana Wesleyan University, and Taylor University, the forum was an interdisciplinary conference open to discussions of disciplinary or interdisciplinary research, innovative classroom teaching, and creating academic community.

Entitled "Stimulating Curriculum & Instructional Materials Development Using Supplemental Resources," the researcher, an Indiana Wesleyan adjunct faculty member, answered a call for proposals and a review committee selected the presentation. Its description:

This research presentation will show the ways in which an arts-based supplemental resource affects teacher design of curriculum and instructional materials. It will also reveal factors influencing teacher use of a resource as well as similarities and differences if used among teachers in like grade levels and like subjects. It will demonstrate the importance that an arts-based supplemental resource can have in the curriculum and instructional materials development of a teacher, department, school, and district. It will demonstrate an alternative way to deliver arts education and education about the arts using a multi-disciplinary resource that can be integrated into most subjects at all grade levels (Midwest Scholars Conference 2005).

Another limitation of this study is that it does not weight or rank the uses of the resource. It does not distinguish between rural/urban school settings. It does not identify school districts as resource rich or resource poor. The study does not consider a teacher's years of experience, years of using the program or amount of specialized training in curriculum development. It assumes teachers are resource seeking, not resource passive.

For purposes of this study a notation on the program evaluation form, a comment in an interview transcript, or an attribution in an annual report will be deemed as evidence of resource usage. A limitation is the lack of evidence to determine why certain usages might have occurred or not occurred in successive or consecutive years.

Delimitations

Delimitations include that a majority of users, 91, were secondary grade level teachers and 51 users from other grade levels. Another delimitation is that 82 teachers were visual and performing arts teachers and 60 taught in other disciplines or subject areas.

Delimitations also include that the Arts Indiana program was discontinued at the end of the 2000-2001 school year and that no scholarly data was published about it after the collection of teacher interviews during the 1996-1997 school year. This study's literature review built a case for the impact of arts education and how it stimulates curriculum and instructional materials development. It assumes Arts Indiana's place in that body of knowledge from its inclusion in a study of 22 programs offering supplemental resources conducted in collaboration between Lincoln Center Institute, the Aesthetic Education Institutes, and Harvard Project Zero (Simmons 1996, 4) and from the findings of this study.

This study is delimited by its focus on the use of the Teacher/Student Guide as an influence for student created writing and drawing and teacher use of the Teacher/Student Guide's effect on teachers' perceptions of student critical thinking improvement.

The *Arts Indiana Magazine in the Classroom* program was used in elementary, middle, secondary, university classrooms, adult, and school district inservice training between the 1990-1991 and 2000-2001 school years. The study uses program documents (agreement, information and evaluation), interview transcripts, and annual reports of the classroom program; not an instrument specifically designed to measure the resource's effect.

Definition of Terms

1. Arts—cultural expressions in literary, performing, and visual genres.
2. Arts-Based Resource—information about and experiences in the literary, performing, and visual genres that assists in instructional delivery.
3. Arts Teachers—teachers of music, visual arts, and dance subjects.
4. Causal-Comparative Method—a type of research that seeks to discover possible causes and effects of a behavior pattern or personal characteristics by comparing individuals in whom it is present with individuals in whom it is absent or present to a lesser degree.
5. Connection—an equal and mutually beneficial link between two or more subject areas.
6. Culture—the fabric that unites individuals and objects within groups, points of references for those groups, and a conduit through which meaning is derived.
7. Curriculum—an organized plan of delivering instruction based on a rationale and including aims, goals, objectives, strategies, methods, learning activities, and evaluation techniques.
8. Development (Curriculum and Instruction)—the process of creating a plan to deliver instruction.
9. Design (Curriculum and Instruction)—the systematic and sequential elements of a plan to deliver instruction.
10. Interaction—dialogue between subject areas.
11. Interconnection—a reciprocal linkage.

12. Interdisciplinary—the linkage of two or more academic areas that are traditionally considered distinct.
13. Integration—the infusion of one subject area with others through linkages that enhance instruction and achieve curriculum objectives.
14. Instruction—the engagement of teacher(s) and student(s) through facilitation of activities and information that imparts learning and achieves curriculum goals.
15. Intradisciplinary—linkages within one academic subject.
16. Multidisciplinary—that which can be used in more than one subject area
17. Perception of Cause and Effect— opinion that a particular thing caused a specific effect (distinct from cause-effect where a causal relationship is proven)
18. Plan (Curriculum and Instruction)—the courses, units, and lessons that deliver curriculum.
19. Private School—a school that is not directly supported by public funds and that may or may not be faith-based and may or may not have a Christian orientation.
20. Resource—that which aids in the delivery of instruction.
21. Supplemental Resource—ancillary material that is used to aid the delivery of instruction.

CHAPTER II

FOCUSED LITERATURE REVIEW

Introduction

The arts are one of humanity's deepest rivers of continuity. They benefit students by gradually building many kinds of literacy while developing intuition, reasoning, imagination, and dexterity into unique forms of expression and communication (Music Educators National Conference 1994, 3-7). Because of this, the MENC National Standards and Exemplars affirm, "*all* students deserve access to the rich education and understanding that the arts provide."

Since some civilizations have left no trace but their arts the question can be asked "Should we be educating children without involving them in those activities that may define their time and place in history?" (U.S. Department of Education 1997, 1). A benefit in Christian education is the freedom to engage a richer definition and view life recognizing that people are not only creators of some meanings, but seekers and discoverers of the "rich meaning and purpose" God has put into life (Harris 2000).

Arts Education Complementing Christian Education

While among most immigrants is a desire to move into the American economic and political mainstream, culturally and religiously most wish to maintain for themselves and their descendants their own languages and customs (Phan 2004, 719). Pope John Paul II defined culture as "the vital space in which the human person comes face to face

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement with the Gospel (Phan 2002, 286-340).” Beyond inculcating one’s own culture, the arts offer an understanding of other cultures and are a place where the sacred and secular meet, which facilitates undertakings such as interreligious dialogue and ecumenical cooperation. In educational settings, the development of children’s cultural literacy is also an important goal (Hull 2003, 8).

Religious arts’ close association to everyday culture is evidenced by the architecture, paintings, drawings, sculptures, the many forms of liturgical music, costumes, symbolic artifacts, floor and wall coverings, landscaping, illuminated manuscripts, sacred literature, and dance that are part of many religious occasions and places (Yob 1995). The study of such in public education is subject to ongoing debate as to whether the inclusion of religious material can be allowed without violating the Establishment Clause of the Constitution (Dewberry 2003, 11).

Beyond the mere inclusion of religious material Michael Beaty (1992, 46) believes that Christian education curricula necessitate all required and elective courses be designed to foster the integration of faith and learning. Norma McKinnon (2005), Vice President for Academic Affairs at Atlantic Baptist College, says Beaty’s conception does Christian education injustice. She asserts that Christian education means an application of the Christian framework to the knowledge and skills being taught. She defines integrated curriculum design as “a blending of the content to be learned in such a way that the parts or specialties are no longer distinguishable. Considering the arts there is merit and worth of deliberately teaching them either as subjects or through the kind of amalgamation that McKinnon would define as integration—a blending that synergizes

and in essence forms a new subject. The arts as conveyors of cultures and definers of one's spirit and place are obvious subjects to use to create synergy from integration.

Many festivals, as celebrations of local talent and culture, help to instill pride in one's community and may even serve to clarify the community's cultural identity by bringing together the arts of various religions and ethnicities, professional and avocational artists and performing arts groups, school children, and others (Katz 1988)

Arts Education as a Steward of Culture

Daniel A. Carp, Eastman Kodak Company chairman and CEO, stated that the arts are “one way for young people to connect with themselves and a bridge for connecting with others. (They) can introduce children to the richness and diversity of the human family (Music Educators National Conference 2002).”

Intercultural learning consists of three parts: 1) *Inter-* meaning that it happens between at least two things (objects, individuals, groups, etc.), 2) *-cultural* while more difficult to define might be considered to be the fabric that unites individuals and objects within groups, points of references for those groups, and a conduit through which meaning is derived, and 3) *learning*, which ideally may be seen as an active, autonomous process in which individuals construct meaning by relating new information to prior knowledge in a continuing process (Finkbeiner and Koplín 2002, 2)

Culture is like an iceberg—about one-seventh of it is visible. The visible part is sometimes best discernable through the lens of the literary, performing, and visual arts. As such studying them can be far reaching as they not only enrich, but also are utilitarian, having positive affect on standardized test scores (Doviak 1997, 18).

In contemporary terms Ted Turner stated, “The arts have a great power for bringing people together. With so many forces in this world acting to drive wedges between people, it’s important to preserve those things that help us experience our common humanity (Music Educators National Conference 2002).

That creativity is universally evident in all people is a constant. The variant is personal recognition of individual channels of expression. Individuality is important because individuals are the keepers and preservers of global culture and the storytellers for future generations (Boyer 1983) and the arts celebrate personality and personal signature (Association for Supervision and Curriculum 1992a).

In addition to explaining culture and being expressions of it, the arts transcend generations and centuries and even their own genres.

While popular culture makes it increasingly difficult to teach classical literary themes that engage high school students and stimulate their interest in reading two teachers found they could teach the legend of Faust (originated almost 500 years ago) and by relating it to the life of Robert Johnson, a blues player from the Mississippi Delta (Copeland and Goering 2003, 1-3).

Popular culture can also be a conduit through which lower performing students are able to make meaning of images, language, and sounds and even enter into e-mail communications with video and audio clips of their favorite rap groups (Alvermann et al. 2001, 2-7). The arts also have an impact on public health as its student participants have the lowest lifetime and current use of all substances—alcohol, tobacco, and illicit drugs (Texas Commission on Drug and Alcohol Abuse 1988).

The arts in society are inherently natural connectors and bridge builders. The arts in education as disciplines/courses/programs perform the same function with their academic counterparts. The arts embrace connected disciplines. Arts education should do the same.

Arts Education as a Channel to Self-Esteem

Quantified, students who can be classified as “disruptive” (based on factors such as frequent skipping of classes, times in trouble, in-school suspensions, arrests, and dropouts) total 12.14 percent of the total school population, 4.06 percent higher than students involved in the arts (National Center for Education Statistics 1992). There is evidence that the arts are a “compelling solution to teen violence (Greene 2000)!”

The Piers-Harris Children's Self-Concept Scale measured significant increases in the self-concept of at-risk children participating in an arts program that includes music, movement, dramatics, and art (Barry 1992).

This may be due to the increases in self-esteem that the arts provide to their student participants. Kathy Ann Caldwell, an art teacher at the Key School in Indianapolis, Indiana, recalled a student “who could have fallen through the cracks. She wasn't good in spelling or math or any of the academic areas” (rigorously taught at the school). “In the process of growing confident about her art and music and theater, the other areas got stronger (Winn 1990).” Visual arts, music, and theater are in the daily schedule of every student at the Key School.

Making art builds children's self-esteem by giving them opportunities to express what they are thinking and feeling. When children participate in art activities with classmates, the feedback they give to each other builds self-esteem by helping them learn

to accept criticism and praise from others. Small group art activities also help children practice important social skills like taking turns, sharing, and negotiating for materials (Sautter 1994).

In dialogue with Eliot Eisner (1991), Maxine Green of Teachers College, Columbia University, stated that the role of the arts in education might need to be reconceived. Only if the arts are fully integrated in American schools will we discover if they can relieve students' apathy and disengagement.

Significant increases in self-esteem have been measured through studies conducted in New York City elementary and middle schools (National Arts Research Center 1990) and for students receiving piano instruction in a McGill University study. The McGill researchers also found that pattern recognition and mental representation scores improved significantly for students given piano instruction during a three-year period (Costa-Giomi 1998, April).

The popularity of arts teachers as role models is also significant. A study of 811 high school students indicated that the proportion of minority students with an arts teacher role model was significantly larger than for any other discipline. Of the students surveyed, 36 percent identified arts teachers, 28 percent identified English teachers, 11 percent identified elementary teachers, and 7 percent identified physical educators as their role models (Hamann and Walker 1993). Holding one's teacher in high esteem is one way that the arts help students value diversity and break through stereotypes (Association for Supervision and Curriculum 1992a).

Assessing the impact and having it accepted in the scholarly community is challenging. Eisner (1991) believed narrative reports that attributed instrumental

outcomes to the arts would become more valued; and the valuing of anecdotal reporting would further validate the transferability of learning outcomes from the arts to other subject areas. There is much narrative and anecdotal evidence that arts education facilitated positive youth development, addressed “developmental experiences,” and encouraged youth to focus on basic life skills and character building in such domains as leadership, initiative, creativity, citizenship, and the humanities. These represented core qualities that could enable youth to become active adult partners in the positive development of society (Robinson 2003, 19).

Arts Education's Impact on the Capacity to Learn and the Ability to Achieve

The College Board identified the arts as one of the six basic academic subject areas students should study in order to succeed in college (The College Board 1983). One year of visual and performing arts is recommended for college-bound high school students and many colleges view participation in the arts as “a valuable experience that broadens students’ understanding and appreciation of the world around them (U.S. Department of Education 1997). A Los Angeles County study concluded the more arts work a high school student takes, generally speaking, the higher his or her SAT scores are and that students cannot justifiably be counseled to cease taking arts courses because other courses can better prepare them for college and the SAT (Watanabe 1989, 1-2).

Physician and Biologist Lewis Thomas studied the undergraduate majors of medical school applicants. He found that 66 percent of music majors who applied to medical school were admitted, the highest percentage of any group. By comparison, 44 percent of biochemistry majors were admitted (Miller and Coen 1994, 459-461).

“To be educated is not only to know but mainly to know how to relate to knowledge” (Harpaz 2005, 138-144) and one’s culture. Effective learning is an outcome of active construction. It is more than listening. It requires active participation. It pushes beyond the traditional grand picture of schooling, which regards consciousness as a “mirror of nature” with the world being comprised of facts containing inner qualities—physical facts and historical facts. President Gerald Ford said that the arts opens doors that help children pass from school into the world around them—a world of work, culture, intellectual activity, and human development. “The future of our nation depends on providing our children with a complete education” that includes the arts (Music Educators National Conference 2002).

Linking arts to academics whether through interdisciplinary studies or integration, whether for reasons of enrichment or improving academic performance, whether to create culture or increase one’s understanding of it may meet the same resistance writing did when contemplated by Plato in dialogue with Phaedrus, “The supposition that it will provide something reliable and permanent is exceedingly simple minded and ignorant . . . it doesn’t know how to address the right people, and not address the wrong (Pailliotet 2000, 1-2).”

Even so, SAT score evidence is clear—students with coursework or experience in music performance scored 57 points higher on verbal and 41 points higher on math and students in music appreciation scored 63 points higher on verbal and 44 points higher on math “than did students with no arts participation (The College Entrance Examination Board 2001).”

The results of balancing the arts with other learning areas in the curriculum have shown that where 25 percent or more of the curriculum is devoted to arts courses, students acquire academically superior abilities (Perrin 1994), demonstrating an apparent relationship between learning in the arts and other areas.

Data finding significant improvements of spatial temporal IQ scores for arts participants contrasted with non-arts participants include 1) a 46 percent boost in preschoolers after eight months of keyboard lessons (Rauscher et al. 1994), b) children given piano lessons compared with computer lessons (Rauscher et al. 1997, 1-8), 3) three- and four-year olds who took lessons on songbells—a standard classroom instrument (Gromko and Poorman 1998, 171-181), and 4) kindergartners who received music instruction (in the school district serving Kettle Moraine, Wisconsin) achieved IQ scores 48 percent higher than students who did not receive music instruction (Rauscher and Zupan 1999).

Neurobiology of Learning, a research team began to look at some of the effects of Mozart on college students and children. Frances H. Rauscher (University of California at Irvine) and her colleagues conducted a study in which 36 undergraduates from the psychology department scored 8 to 9 points higher on the spatial IQ test (part of the Stanford-Binet intelligence scale) after listening to 10 minutes of Mozart's *Sonata for 2 Pianos in D Major*. Although the effect only lasted 10 to 15 minutes, Rauscher's team concluded that the relationship between music and spatial reasoning was so strong that simply listening to music can make a difference (Campbell 2001)."

NASA Apollo 13 Flight Surgeon Dr. Keith Baird (2005), who retired as a general practitioner in 1999, disagrees that human intelligence can be changed. He also disagrees

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

that the arts alone have an impact on standardized test scores hypothesizing that higher achieving students self-select the arts and may have arts exposure in settings beyond the school, such as at home.

Effects of Florida Title XLVIII, Chapter 1008 in the K-20 Education Code and the "No Child Left Behind" act of 2002 combined to mandate stringent performance on standardized tests with a strict regimen of testing for all public school students (Cardarelli, 2003, 13-16). In this paradigm *A Gift for Music* was designed to provide music experiences for Florida third graders to test whether the experience would enhance their standardized test scores. Results of a preliminary survey of classroom teachers who taught students participating in the program were that they held a strong opinion that the reading and mathematics performances of the participating students were positively affected by their participation in the program. This was validated in a later study comparing a group of students participating in the program with a group of students who did not participate in the program (Cardarelli, 2003, 14).

In response to administrators searching for the most effective curricular intervention for their students to meet new state and national accountability, the Louisiana Institute for Education in the Arts suggested that the arts are the tools with which to teach academic standards (Manning 2003, 5-25).

At the same time arts education was shown to account for gains on standardized test scores it also changed the way students were evaluated. Student achievement was measured in many different ways, as a result of assessments derived from arts education. Testing and evaluation began to shift from standardized achievement tests to more authentic assessment. Authentic assessment was the result of portfolio and performance

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement assessments, which began in arts education (Moffett 1997, 37). The Key School in Indianapolis, Indiana, used Process-Folios into which students placed their drafts, revisions, observations, and final products (Blythe and Gardner 1990).

Whether measured by standardized or authentic assessment, arts students received more academic honors and awards than non-arts students and the percentage of arts participants receiving As, As/Bs, and Bs was higher than the percentage of non-arts participants receiving those grades (National Center for Education Statistics 1990).

Ironically, the arts as disciplines that theorists as well as teachers in the trenches claim to improve higher order thinking skills (Davis 1996), are the very programs typically cut from the school district's budget when money is limited (Manning 2003, 5-25) even though their impact was present from birth with evidence that they enhanced spatial intelligence in newborns (Greene 2000)."

Greater brain efficiency of musicians was measured in a study conducted by Dr. Timo Krings. Subjects' brains were scanned using a technique called "functional magnetic resource imaging (fMRI) while they were performing complex sequences of finger movements (Weinberger 2000). Less brain cell activity was detected among the pianists meaning their brains were more efficient at making skilled movements, which suggested that their musical training enhanced their brain function (Krings 2000, 189-93).

One explanation is that musicians are constantly adjusting tempo, tone, style, rhythm, phrasing, and feeling (Ratey et al. 2001). Those playing in a band do so in an environment of approximately 600 different sound possibilities (Swor 1978, 9). Compared to baseball, precision is a key. While a baseball player who hits .300 has a super season a musician who plays with 30 percent accuracy is not (Moffitt 1977). The

arts teach that craftsmanship counts and nuance and subtlety matter (Association for Supervision and Curriculum 1992a).

Researchers at the University of Montreal used several brain imaging techniques to investigate brain activity during musical tasks and found that sight-reading scores (performing music for the first time) and playing previously rehearsed music both activated regions in all four of the cortex's lobes as well as parts of the cerebellum (Sergent et al., 106-109).

Researchers in Leipzig found that brain scans of musicians showed larger plenum temporal (a brain region related to some reading skills) than those of non-musicians and a thicker corpus callosum (the bundle of nerve fibers that connect the two halves of the brain) than those of non-musicians (G. Schlaug et al., 417-418).

While Baird (2005) disagrees that these kind of physiologic changes can occur in the brain the evidence seems to indicate that the arts increased both the size of one's brain and the efficiency at which it functions.

Arts Education's Compatibility to Multiple Intelligences and Multiple Literacies

Reconceiving the role of arts in education is supported in the works of Eisner (1981, 48-52, 1982) and Howard Gardner (1973, 1990) who described intelligences that did not segregate the senses from thinking and cited the arts as vehicles for reaching multiple-sensory thinking. Eisner (1987) suggested that students who had experiences with the arts were better prepared to deal with the complexities of emerging social conditions.

This is supported by John L. Horn, a University of Southern California psychologist, who referred to intelligence as a "mosaic of many distinct units." J.P.

Guilford, another California psychologist, classified 120 categories of intellectual acts and suggested that humans might have 800,000 intellectual abilities (Winn 1990). This was a departure from the work of English psychologist Charles Spearman (a disciple of French psychologist Alfred Binet), German psychologist William Stern, and Stanford University psychologist Lewis Madison Terman who embraced the theory of the g factor (general intelligence factor), a single factor common to the diverse functions and variety of mental facilities, which comprise intelligence often determined by the Stanford-Binet measuring instrument (Winn 1990).

Convinced the Jean Piaget's view of intellect was flawed (all aspects of symbol use is part of a single "semiotic function"), Gardner accrued empirical evidence that the human mind may be quite modular in design. By stretching the word "intelligence" beyond its customary application in educational psychology, he proposed the existence of a number of relatively autonomous "human intelligences" (Gardner and Hatch). Drawing on fields like neurology, anthropology, psychology, and pathology, the Multiple Intelligence Theory emphasized that the highly varied capacities of human beings could be used to encourage children's full development (Blythe and Gardner 1990).

Arts Indiana Magazine in the Classroom (an educational program of Arts Indiana that provided magazines covering the literary, performing, and visual arts to students as a supplemental curriculum resource) combined Gardner's Multiple Intelligences Theory with Benjamin Bloom's Taxonomy of Educational Objectives and Arthur L. Costa Characteristics of Intelligent Behavior in its approach to designing arts education experiences.

It used Bloom's Taxonomy to organize curriculum and instruction sequentially (basic levels to more advanced levels by amount of material and degrees of difficulty), Gardner's Multiple Intelligences to drive the agenda for the types of activities and exercises one would use as pedagogical methodology, and Costa's Characteristics to provide the point of observable and measurable difference or stagnation in the life of a student.

The synthesis was interrelated as Who—Student (the individual), What—Bloom (the taxonomy), Where—Gardner (the intelligences), and How—Costa (the characteristics). When a student exhibited a spike or a drop in one or more of the characteristics as a result of an activity (from one of Gardner's Multiple Intelligences) it was immediately visible as to what the student intrinsically responds or resists. The domain level of the activity or exercise (from Bloom's taxonomy) would reveal at what stage of the subject or lesson the student is operating successfully (or unsuccessfully).

A three-dimensional cube diagram (Arts Indiana 1996) illustrates the merging and interactivity of these theories:

Model to Enhance Critical Thinking Through Triangulation of Three Curriculum-Related Approaches

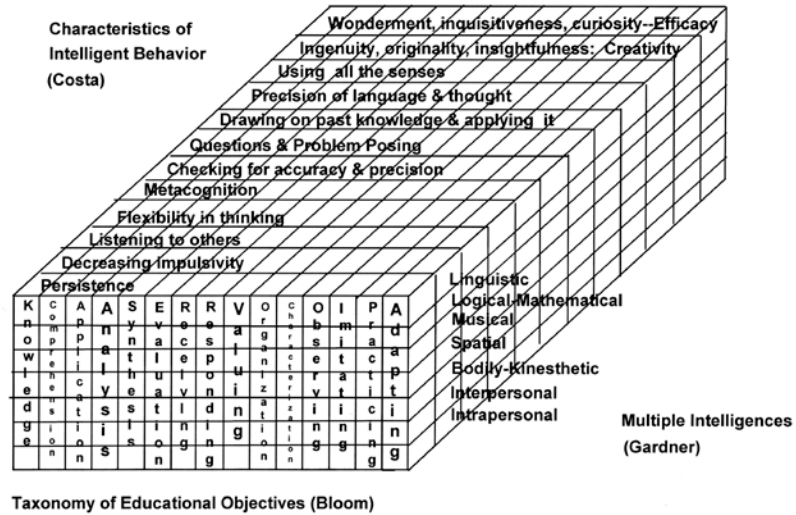


Fig. 1. Arts Indiana’s Model to Enhance Critical Thinking Through Triangulation of Three Curriculum Related Approaches.

The Arts Indiana’s model could also help teachers find the point at which a student is reached—the student’s point of intrinsic motivation (from which the teacher could expand the student beyond it). This was considered important based because education in the arts was found to have a positive effect on both student motivation and academic performance (Hanna 1992) b fighting apathy and nourishing an inquisitive spirit (Don Swartzentruber 2005, 1).

Gardner recommended that Multiple Intelligences be used beyond their domains. For instance, music curriculum shouldn't be restrained to only the musical intelligence, or languages only to the linguistic intelligence. Connections were considered key for all disciplines to have the greatest possibility of reaching the broadest span of students and individually inciting intrinsic motivation.

The Key School engaged and developed students' full range of intelligences, known as high affordance, based on findings that intelligences are largely independent of one another as children exhibit distinct profiles of intellectual strengths and weaknesses (Gardner and Hatch). In this students feel the tingle of truthful engagement that a holistic approach to education can bring (Geoghegan 1994, 457)."

Educators may be in a better position to interpret rather than determine the uses of Multiple Intelligences. Literacy, numeracy, or any other subject matter will be mastered more readily and more thoroughly when the student becomes able to derive intrinsic rewards from learning (Csikszentmihalyi 1990, 115-140).

Nuance is often difficult to observe but essential to discover. Such as understanding the differences and relationships between media literacy, information literacy, and video literacy, undertaken by the International Visual Literacy Association (Shambaugh 2000, 4). Culture was found to be a key link to understand different centers of interest and how meaning is acquired and that trying to fit one literacy within another was less productive than discussing the relationships between them. Forms and genres of the literary, visual, and performing arts made good bridges to such pursuits.

Arts Education and Aesthetics

Learning environments that are organized for aesthetic education prompt students to explore the qualities of a cultural form such as subject matter, the historical context in which that form arises, and the relationship between themselves and a particular cultural form, all of which potentially encourage the critical development of students as political agents (Powell 2003, 10). Aesthetic education can be defined as the development of perception and reasoning pertaining to the qualities of any particular cultural form—the qualities that make something identifiable as art, mathematics, literature, or science. It can play a critical role in the development of political, social and cultural agency.

Progressive societies expect people to achieve all sorts of advanced skills: visual, numeric, computer, geographical, and cultural literacies have been singled out as being essential. Particularly for these *societally expected skills*, the major impediments to literacy—and to learning in general—have little to do with the logic of packaging information. Instead, the aesthetics of them are important. The obstacles that stand in the way of learning are primarily motivational, not cognitive in ones (Csikszentmihalyi 1990, 115-140).

The inherent nature of aesthetics can be traced to the pictorial representation of hunts on cave walls. Edwin Arnold (1981) traced the beginning of marching bands to the playing of wind instruments while marching around the walls of Jericho at a time when string instruments were used extensively (Wolf 1996). Humans have learned to extend the capacity of their minds outside their heads and to store information extrasomatically. A person who is literate has access to the knowledge stored in a particular system.

An illiterate person is not less knowledgeable, less smart, or less able than his/her literate counterpart. But he/she is excluded from the network of information mediated by

symbols—the very representations that the literary, performing, and visual arts help one process. Whether this is a handicap or not depends on the extent to which one must rely on such mediated knowledge to function well in a particular society (Csikszentmihalyi 1990, 115-140). Learning involves processing information and requires the allocation of attention to the tasks. There cannot be any learning unless a person has invested attention in a symbol system.

Media and symbol literacy are the languages of the arts and they contribute heavily to other kinds of literacy required for all educated persons (National Standards for Arts Education January 1995).

The arts can be perceived with the mind just as hearing is perceived with the mind. Knowing aesthetic qualities and how they are manipulated and arranged adds a vital dimension. Initial encounters with the literary, performing, and visual arts are like hearing a foreign language for the first time—it doesn't make sense at the outset. To find feelings, ideas, concepts, and emotions one must move beyond the notes to hear the music, beyond the words to comprehend the plot. Gaining this literacy does not come quickly (Massey 1988).

Places of learning construct alternative realities that are central to peripheral peoples. "Places are not just physical: they are cultural, spiritual, social, and esthetic; and as such, these features insinuate themselves on the body, in which even the smallest activity carries cultural, social, historical, and political significance. "Schooling that encourages the building of connection between subject matter and also within subject matter—such as the connection of a discipline to a larger social, cultural, and historical context—provides for a continuity of experience that encourages flexible thinkers who

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

can make connections across different ideas, issues, and concerns and act accordingly (Powell 2003, 9).

Emphasizing aesthetics critical role in alternative curriculum and pedagogy the Massachusetts Institute of Technology expanded its intellectual horizons to emphasize the arts as well as technology (Ingalls 1996).

Aesthetic appreciation is a way of addressing the world (not limited to objects in galleries and museums) and arts education can raise students' awareness of the aesthetic qualities of their surroundings (Association for Supervision and Development 1992b).

To preserve and enlarge the human dimension in the social order of the future is to forge an arts strategy built on collaboration rather than confrontation, especially as society appears to be taking on the shape of a technocracy. As new technologies continue to unsettle, examining humanity through the arts may help regain balance (Association for Supervision and Curriculum 1992b).

To meet this challenge arts and education must to recognize their need for a more effective partnership. The arts are vital to education and education is critical for the arts (Massey Unknown). But even more critical for the individual since "We engage in the arts, and we ought to teach the arts, because they are a part of what it means to be human (Cortines 1997, 6)."

Fostering Critical and Creative Thinking and Writing Skills

Paul Messaris of the Anneberg School for Communications used Visual Education to help students acquire visual literacy and creativity. He noted that one cannot assume that the consumption of visual images leads to any notable improvement

in a person's creative abilities in the visual realm (Messaris 2001, 1-2). This is one way in which visual literacy differs radically from competence in written language.

Learning to read usually goes hand in hand with learning to write. But becoming fluent in the consumption of images typically takes place without any concomitant experience in their production (Messaris 2001, 2). However, there is synergy in combining the two. Students who drew before they wrote, rather than simply using traditional preliminary cues, scored significantly higher in writing than students who simply described the assignments (Caldwell and Moore 1991, 207-219).

Rob Williams, a history and media analysis teacher, took this in a higher-level direction with the "BadAd Contest." Goals included 1) providing students with a "language of the image," 2) sharpening their media literacy skills (particularly their powers of observation and writing), 3) linking their writing to a critical activist spirit, and 4) having fun in the process (Williams 2000, 1-2). Simply put, students selected an advertisement or campaign they found offensive, insulting, or silly and wrote a 500- to 700-word essay describing and "deconstructing" the ad. Students were also encouraged to include an aesthetic evaluation of how they thought the ad was constructed (lighting, colors, camera angles, or music).

Critical thinking helped students acquire this kind of media literacy. Media literacy encompasses the skills and knowledge needed to question, analyze, interpret, and evaluate the messages of the mass media; i.e. the application of critical thinking to the messages of print and electronic media. It used the "3 Rs"—reviewing, reflecting, and reacting and extends beyond the ability to restate and reconstruct a situation; it encompasses higher-level thinking that involves the ability to analyze or *deconstruct* and

then examine all of the ramifications (Summers 2000, 1). In other words, understanding the whole part whole.

Education implies a continually broadening experience with ever-expanding materials. Equally important to mastering these experiences is the development of discrimination in the students' appreciation. Given the means for judgment and choice, the student is led toward good choices and thereby able to discern what is good and what is less than good (Shoup 1990).

No one can tell another what must be accepted as good music, good art, or good literature. A teacher must lead a student to self-discovery of what is best. The student experiencing a wide variety of materials over a period of time would accomplish this. How can students make choices (which means developing discrimination) what they are having less and less exposure to a variety of possibilities and results? (Shoup 1990)

Making connections makes learning relevant and stokes intrinsic motivation. Among the lessons learned from the arts is that finding intrinsic satisfaction in learning is important (Association for Supervision and Curriculum 1992a). Teachers make education more intrinsically rewarding by finding out what students want to learn to read, write, and create. Responses like "I want to be able to read the paper in the morning to know what going on in the world like my father does" and "I want to learn to read so I can be a doctor and make children well (Csikszentmihalyi 1990, 115-140) were typical.

Curriculum and instruction can be more meaningful if they are sequenced in a manner consistent with children's stages of development (Costa) and meet them at the point of their intrinsic motivation, which is at play at all times, even when not perceived or evident. Blythe and Gardner (1990) caution that there is always a gulf between

psychological claims of how the mind works and educational practices. Thus, the task of educators ought to be to *educare*, “to lead out,” which implies meeting youth where they are and taking into account their goals, interests, and skills (Costa).

When school children are overwhelmed by their topics they write essays that readers find confusing; when students are bored they write essays that are boring (Csikszentmihalyi 1990, 115-140). Learning progresses through stages of increasing complexity (the number of ideas and factors we can think about), and increasing abstraction (the greater distance from the real—from the concrete object, to a pictorial representation of the object, to a symbol which stands for the object, to a spoken word which stands for the symbol). An example of this is the “sign language” a musical conductor uses to convey ideas (Leppla 1989, 16) of his or her interpretation of a composer's or arranger's meaning to the musicians being led. This “language” has been used since 2800 B.C. (Morosic 1978).

Intense involvement in opportunities for action in given activities (or challenges) are more or less in balance with the person's ability to respond to the opportunities (or skills). Challenges are not operationalized by virtue of objective reason, but because of the way they are interpreted. Students whose talents are in the arts are usually in balance when engaging in the arts in school and consequently their level of motivation is much above the baseline when involved with their talent (Costa).

Marie Winn (1990) classified ability as a component of intelligence when we cannot get along without it, and a talent when we are not noticeably handicapped by its absence. Beethoven is said to have told one of his pupils that his own musical education had been sorely lacking but that he had talent. Those without talent usually cannot

triumph over a poor musical education. A corollary to this illustration was an informal Music Alliance poll of 6th and 10th graders that revealed that Beethoven was the most recognized composer even though only five percent knew who he was (Ames 1990, 40-41, 44, 49).

Studies suggested that in addition to enhanced higher-level thinking the arts also enhanced communications and writing skills, improved reading by remedial readers, improved attendance, and increased achievement in language and math. Arts education improved student self-esteem and student perceptions of how parents felt about them (Moffett 1997, 36).

The arts helped foster critical thinking skills when used in multidisciplinary integration and were used to teach critical thinking by applying higher order methodologies (William L. Hooper). To teach critical thinking in the arts required a regimen of 1) homework (daily textbook reading assignments) 2) testing (by essay, objective question approach on listening and observation, and short-answer question methods), 3) writing (a series of required essays), 4) critical thinking exercises, and 5) group problem solving (cooperative education). Without this critical path there could be a whole generation of kids who don't know how to form a sentence, a paragraph, or how to back up a thought with details (Harris 2005).

The Arts Indiana program used two acronyms to express an attitude and pathway for students, teachers, and parents to use: WRITE (as a definition) Wonderful Realms Igniting Total Enrichment and WRITE (as a formula) Write Recite Insight Tight Excite (*Arts Indiana Magazine* 1995).

Change in the study of the arts will require political, social, and pedagogical paradigm shifts (Sommerfield 1995). A case for the arts can be built either upon the intrinsic value of the arts or the value of an arts education's consequences (Cortines 1994).

Several factors contribute to the current state of marginalizing the arts. First, a longer tradition in Western culture grading art as a matter of emotional catharsis rather than a matter of the mind—something one does with one's hands not with one's mind. Second, society views the school's first obligation as the cultivation of the intellect, and intellect is regarded as something that is best cultivated through subjects like mathematics, physics, and language. The schools' definition of intelligence is fixed, limited to verbal and mathematical reasoning, and disregards the variety of intelligence that children possess (Villon 2003, 23) instead of embracing that “All human beings have the capacity to generate original, clever, or ingenious products, solutions, and techniques (Costa 1988, 5)—a secular affirmation of scripture. God, the Ultimate Creative Thinker, created man in his image—an image of being creative.

Multidisciplinary Integration and Effect

Integration can be as simple as using existing resources more effectively (Kuh et al. 1994, 23-8), i.e. breaking down barriers between various units (e.g. academic departments and create situations in which students examine the connections between their studies and life outside the classroom and to apply what they are learning). In Christian education integration contrasts from interaction in that integration includes “what Christian faith can contribute to the arts and sciences (Harris, 2000).

Interaction can be mistaken for integration, just as outputs are sometimes mistaken for outcomes.

Though some arts organizations believe solely in teaching arts for their intrinsic value, the National Standards and Exemplars set forth that one of the most important goals the Standards can achieve is to help students make connections between concepts and across subjects (Music Educators National Conference 1994, 18-20). They should be taught in ways that connect them both to each other and to other subjects, enabling students to understand wholes, parts, and their relationships.

In its statement IMPACT 9 (Interdisciplinary Model Programs in the Arts for Children and Teachers), the U.S. Department of Education noted, "The arts can become important in the lives of students whether taught by classroom teachers or specialists, or both (U.S. Department of Education 1997, 2)." IMPACT demonstrated that a central role for the arts could bring positive results for the whole school (U.S. Department of Education 1997, 1).

Today and in the future, music specialists will be expected to use technology and hands-on professional development to connect students, classroom teachers, and the cultural community to the study of the arts, and to improve teaching and learning across the curriculum (Bell 2000, 6).

During the last decade, North American schools have been devising new curricula to include the arts, with the common belief that visual art, drama, dance, and music have the power to humanize the curriculum. Cornett & Smithrim (*The Arts as Meaning Makers—Integrating Literature and the Arts Throughout the Curriculum*) asserted that

the arts are “universal in their appeal and importance for the development of a child’s physical, emotional, intellectual, and spiritual strengths (Ball 2003, 8).

Interaction between the arts and the curriculum is real and provides connections that transfer across subject boundaries and support the regular curriculum. (Hull 2003, 2)

The arts can also embrace annually adopted school-wide themes that often seek to create a family literacy. It’s not uncommon to have students compose songs, poems, collages, maps, diagrams, charts, tables, dances, graphs, reports (oral and written), dioramas, letters, e-mails, hypermedia museum exhibits, murals, and notes as vehicles to represent their new knowledge about the theme in order to convey it to others (Shannon 2001, 1-2). Even *USA Today* got into the act with a contest using music to motivate students write (Stout 2005).

Most information about integration consisted of success stories and lacked an examination and description of school realities (Feldman 2003, 20-24). The state of integration that from 1966-2003 found that the arts were far more commonly integrated with social studies or language arts than with science or math, even though artistic prowess and engineering and technical design competency in the Silicon Valley have been linked “nearly without exception (Venerable 1989)” to the arts.

Chemistry and the arts share the distinction of being two of the most important curricular areas that provide foundations for critical, logical, and creative thinking. This led the Community College of Allegheny County to create a non-traditional science course entitled Chemistry of Art. Concepts explored include the language of chemistry, art of the periodic table, chemistry of textiles, paint chemistry, chemistry of photography, properties of light, Leonardo da Vinci the artist, and Leonard da Vinci the scientist.

Laboratory experiences included pigment preparation, glass sculpture, solvent effect on fibers, pH of everyday chemicals, crystals on slides, mixing light colors, mixing pigment colors, photography with a microscope, the camera as an instrument of science, and the camera as an instrument of art (Waltz 1992, 343-344).

The National Council for Teachers of Mathematics' Process Standard

“Connections” emphasized acquiring a deep and lasting understanding of mathematics through integration of topics, contextual relationships, and student interests. It reflected the idea that “school mathematics experiences at all levels should include opportunities to learn about mathematics by working on problems arising in contexts outside of mathematics (White 2003, 18).” It affirmed that the arts are a “magical gift we must nourish and cultivate in our children, especially now as scientific evidence proves that an education in the arts makes better math and science students (Greene 2000).”

The scientific evidence included a study of 237 second grade children who used piano keyboard training with newly designed math software to demonstrate improvement in math skills. The group scored 27percent higher on proportional math and fractions tests than children who used only the math software (Graziano, Peterson, and Shaw 1999). It also included an analysis of 25,000 secondary school students (part of the National Education Longitudinal Survey) who showed consistent high levels of involvement in the arts throughout the middle school and high school years also showed “significantly higher levels of mathematics proficiency by grade 12 (Catterall, Chapleau, and Iwanaga 1999).” The observation held regardless of students' socio-economic status.

The brain skill and math link is evidenced in marching bands. Marching band members—who link music, geometry, and physical education—make two decisions per

second on the field—1200 in a typical half-time show (Moffit 1977)—and their movements must be precise as a one-degree error results in a one-foot misalignment in 20 yards of marching (Swor 1979). Kinesthetically, since everyone has one leg slightly longer than the other, individual band members may only be able to march straight on one side of a football field, since it has an 18-inch crest without overtly compensating for the difference. Marching band directors design show drills on field charts that are 1:30 scale (Arnold 1981, 73) and that account for audience perspective (Lee 1955, 69-70), i.e. the further away and higher the audience is in stadium seating, the more a design has to be charted as elongated to be viewed with proper proportions from the stands.

In two Rhode Island elementary schools, students who were given an enriched, sequential, skill-building music program showed marked improvement in reading and math skills. Students in the enriched program who had started out behind the control group caught up to statistical equality in reading and pulled ahead in math (Gardiner et al. 1996, 284).

Arts programs that included reading also increased reading abilities among students who had been reading at below-grade levels. Children who were up to five years behind in reading were able to get to grade level after only five months of participation in such a program (G. McGuire 1984, 835-839).

Some students, who had been reading below grade level, were involved in an arts-based program called Reading Improvement Through Art (RITA). Results showed that this program, which integrated vocabulary and reading in art, caused students to achieve a year's worth of anticipated reading gains in only six months.

Students who had difficulties with abstraction in mathematics and language often had a preference for visual learning, rather than the verbal and numerical methods used in schools (McFee 1970). While reading achievement was not impacted by a music treatment, students experiencing a music curriculum demonstrated improvement in accuracy and fluency for auditory temporal tasks, an increase in auditory visual integration skills, and higher phonemic awareness scores (Bowles 2003, 5).

Out of necessity for survival in some instances the arts have been reaching out and beyond their traditional intradisciplinary collaborations to forge interdisciplinary linkages (National Assembly of State Arts Agencies 1988). Gardner's Multiple Intelligence Theory provides a framework on which to build a comprehensive curriculum outside of the realm of more traditional departmentalized divisions of subjects and knowledge. Schools that took a comprehensive, cohesive view of the arts infused them into the general curriculum as a powerful integrating force (Remer 1996).

Interdisciplinary relationships are sometimes called *correlation* and sometimes *integration*, each of which carries its own positive connotations for some participants, and negative connotations for others. This led the Consortium of National Arts Education Associations to refer to interdisciplinary relationships and collaborations as *connections*, seeking to use a more neutral and unencumbered vocabulary (Glatthorn 1995).

Interconnections always relied on an external player, whereas intra-connections were more self-determined and self-controlled though not compromising nor losing external accountability. Impact for the arts would be heightened by bringing-in instead of

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

reaching-out. Bringing-in serves to integrate, correlate, and (most importantly) *connect*. Reaching-out invites, exposes, and introduces.

When arts teachers looked at roles other than (but not totally in place of) production and performance to look at how the arts are natural touch points for critically thinking about connected disciplines like geography, history, mathematics, science, and sociology, the arts gained a credibility by the “non-arts” community (Scott-Kassner 1995) that otherwise might never have been realized. Instead of a separate *arts approach* and *humanities approach* (Glatthorn 1995), a *connected approach* would be more real-life.

Collaborations occurred between teaching specialties in schools and between specialties within schools and external community resources. Schools discovered who in their community is available, affordable, and most qualified by professional (or equivalent) training and experience for the job (Remer 1990). Site-based management and thematic units opened the door to these collaborations and made them essential.

The Key School in Indianapolis brought the community to its students. Community members volunteered to share their expertise in a craft or occupation by working with small groups of students who expressed an interest in it. The school drew inspiration from the educational success of non-school enterprises to achieve its goals. Adults in the community participated by becoming masters or provided ideas for particular projects (Blythe & Gardner).

It will be important to assure that integration, not just a correlated experience, occurs (to maximize results). Everyone may feel great about having a performing ensemble present a convocation. But if nothing was done before hand and nothing is

done afterwards, not only have opportunities been missed, the event itself would be hard to justify.

The Arts as a Part of the Academic Core

Among the five Guiding Principles in the Massachusetts Arts Curriculum Framework, adopted in 1999, is one “providing opportunities for students to make connections among the arts, with other disciplines within the core curriculum, and with arts resources in the community (Dickerson 2003, 21-22). The No Child Left Behind Act (2000) included as “core academic subjects” English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography.

Pennsylvania adopted a process by which students engage in the arts. It included 1) perceiving—taking in information, discerning, being aware of one’s own artworks and the art of others, 2) responding—expressing feelings, ideas, or actions privately or openly, 3) understanding—comprehending the elements of various arts, the way arts are produced, the roles the arts lay, and the history and sociology of the arts, 4) creating—using imagination, understandings, and skills to express unique ideas (in music this might take the form of improvising or composing), 5) evaluating—developing, refining, and applying the criteria for judging the quality of one’s own work and the work of others, and 6) developing skills—learning to use the tools, techniques, and elements of various art forms to express ideas (Fowler and Pennsylvania Department of Education 1984, 23).

Discipline Based Art Education (DBAE) encouraged the inclusion of aesthetics, art criticism, and art history into art education. Discipline-based art education, as a part of general education, aims to develop mature students who are comfortable and familiar

with major aspects of the disciplines of art. The goal is amplified in this manner: Students will be able to express ideas with art media; will read about and criticize art; will be aware of art history as the chronological, geographic, and personal context of what they are seeing all around them, not just in galleries and museums; and will have an understanding of the basic issues of aesthetics (Greer 1997).

DBAE spawned debate. Studio art production advocates believed that art production could be transferred to other cognitive activities. Theorists believed that the recent inclusion of aesthetics and criticism were more responsible for gains outside of the arts. The debate about what elements of the arts caused instrumental gains continued by both groups. The framework of DBAE was simply a synthesis of elements from inquiry-based teaching and learning (Moffett 1997, 36-37) in that students could explore as a result of art making, art criticism, art history, and aesthetics (Dobbs 1998).

One integration design is a sophisticated kindergarten approach that would include in all grades the arts, science, sports, and play and make education involve them all through life. The caution of requiring every high school student to take the arts every year is that introduction and offering is not enough and leveling creativity, rather than promoting it, often occurs—as in “that’s not how you draw a horse (Ames 1990, 40-41, 44, 49).”

There may never be consensus. Consensus is not necessary for effect: “During the Gulf War, the few opportunities I had for relaxation I always listened to music, and it brought to me great peace of mind,” reflected H. Norman Schwarzkopf, General, U.S. Army, retired. He has shared his love of music with people throughout the world, while listening to the drums and special instruments of the Far East, Middle East, Africa, the

Caribbean, and the Far North. He noted "all of this started with the music appreciation course that I was taught in a third-grade elementary class in Princeton, New Jersey (Music Educators National Conference 2002)." What a tragedy it would be if the arts were not taught to children.

Literary, Performing, and Visual Arts as Curricula Supplemental Resources

According to demographics from Dunn & Bradstreet there are nearly two arts teachers per public school in the United States. Private Catholic schools have the equivalent of 0.87 teacher per school and private non-Catholic schools have the equivalent of 0.53 teacher per school. These figures combine music, visual art, and dance teachers serving in these schools (Dunn & Bradstreet 2004).

Commenting on the affects to one arts genre, Monsignor Richard J. Schuler noted "Today, hardly any music is taught in our parochial schools and what little is used in the liturgy is inferior material unworthy of the church and beneath serious study as music (Schuler 1988, 5).

In the future the public schools will still exist, but they will be only one facet of a wide diversity of systems for enhancing education, many of which will be privately operated. Public and private school choices will include schools affiliated with a religious denomination, home schools, magnet schools, charter schools, and contracted schools. Some will become confederations of sub schools that cater to students' special interests, from physics to the performing arts (*What Should Be the Relationship Between Schools* 2000, 1-2).

The current staffing pattern, its affect, and schooling's decentralizing future suggest a variety need for supplemental curricula resources that are adaptable to

providing access to the arts in diverse settings. A study of 22 programs offering such resources and how they translate their philosophy was undertaken in collaboration between Lincoln Center Institute, Aesthetic Education Institutes, and Harvard Project Zero (Simmons 1996, 4).

It found that program practices included these commonalities:

1. Offerings: support opportunities and designs for establishing partnerships.
2. Repertory: the visual and performing art works used by programs.
3. Artist selection/training/support: criteria for hiring teaching artists.
4. Teacher training/support: in-service, pre-service, and in-class activities to help teachers present the various art forms or integrate the arts into their curriculum.
5. Arts advocacy and community building: publications, parent councils, workshops, administrator training programs, and community outreach.
6. Assessment: the range of activities intended to document and evaluate the program.

Programs included:

1. *Arts Indiana Magazine in the Classroom*, Indianapolis: worked with teachers from several disciplines to reveal and advocate a dimension of the arts beyond production and performance into analysis, synthesis, and evaluation through critical thinking and writing.
2. Connecticut Commission on the Arts, Hartford: produced an Artist Training Program for “culturally diverse artists” was an intensive training course that included “experiential activities that provided participants with tools for adapting

their artistic talents and expertise and cultural background into teaching in schools.”

3. The Cultural Council of Greater Chattanooga, Chattanooga, TN: shifted focus from “arts for arts sake” to “arts as a social resource,” produced “Art in Other Places” conference, and published “Untapped Public Funding for the Arts Recourse Development Handbook.”
4. Cultural Council of Greater Jacksonville, Jacksonville, FL: sought its own data by looking at the peripherals of its new arts focus schools—number of students in A-B honor role, students with A in conduct, and parental involvement. In the second year students with perfect attendance rose 22 percent, students on A-B honor role rose 18 percent, and parent involvement soared with a 48 percent gain.
5. Cultural Education Collaborative, Milton, MA: offered a professional development program for artists and teachers entitled “Artist/Educator InterChange.”
6. El Museo Del Barrio, New York: produced community activities that included Museum Mile, Family Day, Day of the Dead, The Caring Program, and Day Without Art.
7. The Fillmore Arts Center, Washington, D.C.: served a cluster of public schools and provided students with weekly exposure to six disciplines—dance, drama, music, visual arts, creative writing, and physical education.
8. Getty Center for Education in the Arts, Santa Monica, CA: marshaled resources so that artists became discipline area content experts to teach the processes to

teachers. Teachers then served as advisors, group leaders, or facilitators in the development of curriculum units and lessons.

9. Kennedy Center Alliance for Arts Education, Washington, D.C.: a coalition of 41 statewide not-for-profit organizations that supported policies, practices, and partnerships to ensure that the arts are integrated into K-12 curricula in each state.
10. Kentucky Center for the Arts (Kennedy Center Affiliate), Louisville: a statewide resource for a multitude of arts-in-education opportunities linking schools with local artists underwritten by corporate sponsors.
11. LEAP: Imagination in Learning, San Francisco, CA: interweaved all aspects of learning with the creative process through extended in-school residencies for architects and artists working in various media.
12. Lincoln Center Institute, New York: encouraged interaction between teacher and artist by advocating several stages of collaboration—initial planning, organized mid-experience review, and follow-up where student work was brought in to review and teachers had the chance to think about changes for the future.
13. The Music Center of Los Angeles: published *Art Sources*: an educational reference guide to the performing arts.
14. National Dance Institute, New York: brought dancers to the schools where they met intensively during a three-month period with all fourth-sixth graders.
15. New York Department of Cultural Affairs, New York: collaborated with Arts Partners to develop the “Elders Share the Arts” program that brought neighborhood youth and elderly people together to make art, and, in the process, explore each others’ lives.

16. Ohio Arts Council, Columbus: based programming on the SCANS (U.S. Education Secretary's Commission on Achieving Necessary Skills) report that argued the economy depends increasingly on art-related skills including design, media production, photography, music, etc, and that arts-generated skills are valuable in any workforce, e.g., the ability to think critically, work creatively, focus, work in groups, etc.
17. Performing Tree, Los Angeles: offered a “program packages” approach to artists residencies in schools, which are custom designed to meet core curricular goals and objectives and include staff, student, and parent workshops in addition to performances.
18. St. Augustine School of the Arts, Chicago: employed 12 teaching artists who developed a curriculum in which students spent 30 percent of their time doing arts. While the arts were taught as separate disciplines, collaterally they served to reinforce skills used in academic subjects, e.g. the essential learning skills of concentration, perseverance, and cooperation.
19. Studio in a School, New York: focused on visual arts by establishing 140-day residencies in a working studio within participating schools.
20. Urban Gateways, Chicago: offered workshops in dance, music, and theatre.
21. Young Audiences of Eastern Pennsylvania, Philadelphia: provided several opportunities for collaboration—artists from several different disciplines worked with teachers on an ee cummings poem and a collaboration between visual artists, teachers, and students to decorate a Christmas tree.

22. Youth in Arts, San Rafael, CA: specialized on early childhood staff development.

An example: A story teller talked about many ways to tell a familiar story, puppeteers showed how to tell the same story with puppets, dancers demonstrated how to tell the story in tap, and teachers learned how to bring such events into their classrooms by inviting children to tell their stories and act them out using various arts genres.

Arts Indiana's program consisted of individual copies of the monthly *Arts Indiana Magazine* provided to each student and teacher in participating classrooms. *Teaching Arts Now!!!* was an accompanying teacher guide and contained "The TEACHing Edge" (Techniques to Encourage Arts in Classroom Harmony) and "IDEAS" (Instructional Dimensions to Encourage Arts Students) sections. A supplement, *Teacher Spotlight*, showcased teacher successes and ideas from the field. *Student Arts Now!!!* suggested activities, exercises, and questions about material in the magazine and community resources involving the literary, performing, and visual arts.

The program was similar to Cable in the Classroom that used programming from 40 national networks as the supplemental resource and downloadable lesson plans to deliver curriculum (Cable in the Classroom). The materials promoted family media and were branded as "Parent's and Caregiver's Guides (National PTA 2001-2005). There were also similarities to the Newspapers in Education program, which boasted a study of Swedish school children who substituted newspaper for textbooks and surpassed those using textbooks in reading development by half a school year (Newspapers in Education 2005).

Arts Indiana's program was used in elementary-to-adult classrooms and in subjects that taught art, drama, English, humanities, language, music, theatre, social students, and special education. An advisory committee of practicing educators, ARTS (Arts Resources for Teachers and Students) provided input for program direction.

To add to its usefulness, the Arts Indiana curriculum was linked to Bloom's Taxonomy of Educational Objectives as shown in the next three illustrations.

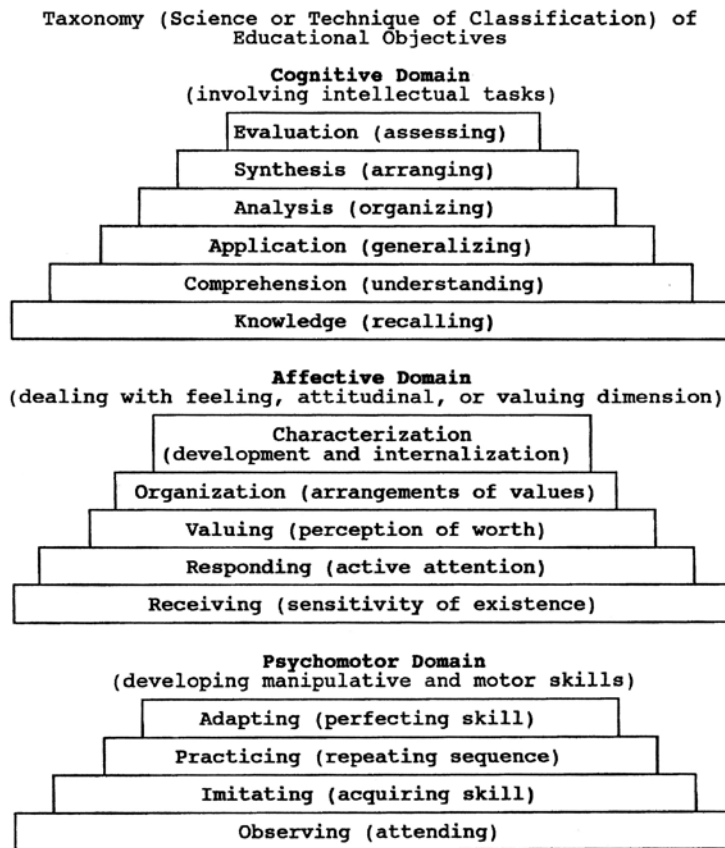


Fig. 2. Bloom's Original Taxonomy of Educational Objectives (Taxonomy of Educational Objectives 1956).

Arts Now!!! **September, 1995** **Page Five**

A Passion for Artists with Passion, by Doug Donaldson (page 21)

Cognitive/Evaluation **Activity: Planning**

Small towns can have a lot of art according to Bill Caddell who believes in taking the resources a community has and using talent to develop them. Consider your community (either your school, town, city, or county). What are some of the opportunities which exist (though maybe are undeveloped or underdeveloped) for different art forms in your community? How would you go about marshaling the resources of your community to develop and sustain arts programs? Prepare a narrative report entitled *State of the Arts: A Vision for My Community*. In it set forth a plan of action for the arts. It might contain sections on keeping arts in the schools, hosting visiting exhibitions at your local library, landscaping a park, or adding sculpture to a parking lot. Use your imagination and be creative, but remember you must address not only the idea, but also how to fund it and how to maintain it. Please consider grouping students in teams to perform this exercise for a cooperative education experience.

TEACHER ALERT: Select examples you grade as best meeting the challenge of this exercise. Contact your school newspaper and local newspaper and other news media to learn of their possible interest in reporting on your students' findings—perhaps publishing some in their entirety. Please send us copies of the results, as well as the students' original work (whether published, or not). Thank you!!!

Arts Now!!! **October, 1995** **Page Two**

What Writing Means to Me, by Hank Nuwer (page seven)

Cognitive/Synthesis **Activity: Writing, Rewriting, Cooperative Learning**

Nuwer discusses the importance of revising (*to make what is bad, good; to make what is good, excellent, and to give what is excellent to the world*). Have students pick a subject about which they have much passion. It could be a local community issue, it could be a school issue, it might be a social issue. The only parameter necessary is for them to write about something they care greatly. Have the students prepare their essays without their names. After a week, then ask them to write a second *edited* essay. Distribute the first essays randomly, asking students to assume the role of editor. Collect the second edited essays and evaluate them. Return both *edited* essays to the student writer. Ask them to compare and contrast their edited version with the original version; edited by another. Have a discussion about what was learned about the importance and value of revising and *editing*.

Take the best revised versions and publish a classroom literary magazine. Perhaps your magazine will be an eclectic collection of what's important to students, perhaps a theme will emerge from what the students wrote. Please send a copy to *Arts Indiana Magazine in the Classroom*.

Fig. 3 Arts Indiana Curriculum Example (September-October 1995)

Letters (page 12)

Cognitive/Synthesis Activity: Writing

Andy Kistner, a Senior in Karen Bennett's Senior Humanities Class at Ben Davis High School, Indianapolis, agrees with Jacobi's assertion that art funding cuts will exclude many people from the arts. Please read Andy's letter. Create a letter that can be sent to us. Do you and your colleagues agree/disagree with Kistner? What other issues do you want to discuss in a letter to the Editor of *Arts Indiana Magazine*. Please share letters with us. . .

Teacher/Student Alert: Please note the letter *Student Support for Funding*. It was written by Andy Kistner a senior at Ben Davis H.S. The editors of *Arts Indiana Magazine* encourage students to write. Here is the result of one who did. Teachers, please feel free to send several samples of your student writings, too.

New Plans, New Problems for the New Director of the IAC by Susan Reeder (page 13)

Cognitive/Synthesis Activity: Role Playing

Create an in class arts commission. Have other class members either individually or in small groups represent a certain arts organization which will apply to the commission for funding. You may want to use examples from your school and community, or invent other possibilities. Have your teacher establish an amount of grant money available for the commission to distribute. The commission members will need to establish funding guidelines and create an application form. The arts organizations will apply for funding and appear before the commission to present their cases. Then the commission issues its report. Some organizations will probably receive the funds they requested, others will be partially funded, and others probably denied. Then have a discussion. Have the arts representatives question the commission regarding its decision. Have the arts representatives speculate as to how the commission's decision will affect their organizations. Then, collaboratively, discuss how important public funding is or is not to the arts and invent alternative funding avenues for the arts and judge their practicality.

Teacher/Student Alert: Write a synopsis of this exercise and send it to Dorothy Ilgen, Director, Indiana Arts Commission, 402 W. Washington St., Indianapolis, IN 46204. Also, before the mock hearings, you may want to invite her to come and participate in the proceedings. Her telephone number is 317-232-1268.

© 1995. *Arts Indiana Magazine in the Classroom*

(Teachers have permission and are encouraged to copy *Arts Now!!!* for the students in their classrooms)."

Arthur L. Costa, Search Models Unlimited, Granite Bay, California, identifies a dozen *characteristics of intelligent behaviors* that teachers and parents can teach and observe (when teaching for thinking): 1) **Persistence:** Persevering when the solution to a problem is not readily apparent, 2) **Decreasing impulsivity;** 3) **Listening to others--**with understanding and empathy, 4) **Flexibility in thinking,** 5) **Metacognition:** Awareness of our own thinking, 6) **Checking for accuracy and precision,** 7) **Questioning and problem posing,** 8) **Drawing on past knowledge and applying it to new situations,**

Fig. 4 Arts Indiana Curriculum Example (November 1995)

Arts Now!!! was a student/teacher guide used 1995-1996 prior to the introduction of a separate student guide and teacher guide, *Student Arts Now!!!* and *Teaching Arts Now !!!*

Curriculum developments since the Arts Indiana program include revisions to Bloom's taxonomy that updated it reflecting relevance to 21st century work. The revised version used verbs to describe the different levels of the taxonomy:

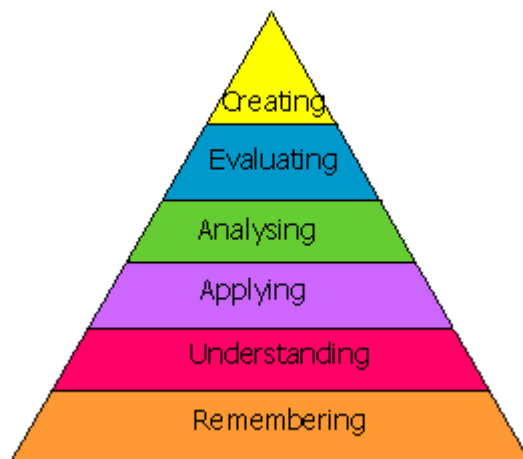


Fig. 5 Bloom’s Revised Taxonomy (Anderson et al. 2001)

Also, *naturalist*—an eighth intelligence—was added to Gardner’s Multiple Intelligences (Lazear 1999, 171-187).

Curriculum was derived from the verb *currere*, which means “to run (Ford 1991).” Since it’s traditionally delivered on a “course” of study, curriculum can be viewed as a race. In Biblical context, we are reminded that we should “run and not be weary.” Thus, a well-designed curriculum should energize, invigorate, and renew its planners and users. Supplemental resources add conditioning and strengthening to a curriculum and prepare its student participants to be in shape enabling them to “learn and not be weary.”

Individual Lifelong Benefits from Arts Education

The life-long impact of arts education in developing arts literacy could contribute to one’s quality of life. While music therapy isn’t mainstream health care, it was shown to have a wide range of benefits. In 1996, researchers at Colorado State University tried

giving 10 stroke victims 30 minutes of rhythmic stimulation each day for three weeks.

Compared with untreated patients, they showed significant improvements in their ability to walk steadily (Westley 1998, 103). Significant decreases in anxiety, depression, and loneliness following individual keyboard lessons and significant increases in human growth hormones following group keyboard lessons (Tims et al. 1999). Baird (2005) disputes the findings believing that it was the extra attention and stimulation these patients received that cause improvement in their conditions.

Leading heart surgeon Michael E. DeBakey of the Baylor College of Medicine noted, "In medicine, increasing published reports demonstrate that music has a healing effect on patients (Music Educators National Conference 2002)" and deserves strong support in our educational system.

Dr. William C. Moffit pioneered a new beat on the aerobic workout front in 1988. Then 62 years old, the director of Purdue University's *All-American Marching Band* developed *Music Makes Me Healthy*, a half-hour routine of stretching, aerobic "marching" to music, and "conducting" to develop the upper body. He was inspired to start the program from his annual health examinations. "Every year when I'd go see my doctor, he'd always be amazed at the health of my body, heart, and lungs. I realized that conducting and marching kept me fit."

Music Makes Me Healthy was led by Moffit in a Lafayette, Indiana, shopping mall and was also produced as a daily five-minute segment that aired on a local television station. He speculated its success was for the simple reason that "everyone has always dreamed of conducting a band or an orchestra (Health 1988, 22)."

As a contributor to wellness, college students find playing in orchestras aren't just good stress relievers, but the scholarships some get to play help ease the way (Renze-Rhodes 2005).

Even after college adults can find opportunities with community ensembles and senior citizens who may have never played an instrument can learn to do so through the New Horizons International Music Association. Started in 1991, the organization had 100 organizations (bands, orchestras, and other ensembles) in 2005 (New Horizons International Music Association 2004-5).

Economic Benefits From An Arts Literate Populous

As an economic driver, the arts were stronger than most people realize (Doviak 1997, 18). The arts created jobs, increased local tax bases, boosted tourism, spurred growth in related businesses (hotels, restaurants, printing, etc.) and improved the overall quality of life in local communities (American Arts Alliance 1996).

In Indianapolis the arts employed more and had audiences larger than the three professional sports teams (NBA basketball, NFL football, minor league baseball, and minor league hockey) combined (*Report of the Arts & Entertainment Committee* 1997). The arts in that city also drew audiences (7 million people in 2000) from urban, suburban, and exurban areas (Artsmarket Consulting 1997), and impacted shopping, eating, and lodging associated with event attendance. Nationally, more American attended arts events than sporting events (Association for Curriculum and Supervision 1992b).

The arts industry in Indianapolis generated \$294.4 million in local economic activity, supported 10,412 full-time jobs, created \$230.8 million in household income to local residents, and delivered \$32 million in local and state government revenue. In

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

2000, 13,476 arts volunteers donated 452,201 hours to Indianapolis' arts organizations valued at \$6.9 million. The city's arts organizations received \$9.4 million of in-kind contributions in that same year (*Arts & Economic Prosperity: the Economic Impact* 2003, iii-xi).

Buoyed with data that audiences hail from the entire 44 county-integrated economic development region as defined by the U.S. Bureau of Economic Analysis (Sapp 2003, 1), the Indianapolis Cultural Development Commission's Cultural Tourism Initiative adopted as an "indicator of success" that "Indianapolis will be known nationally and internationally as much for its arts and cultural tourism offerings as for its sporting event offerings and will be a 'top of mind' cultural destination of choice (Technology Partnership Practice 2003, 51)." This started with a recommendation from an assessment study funded by The Lilly Endowment and the Indianapolis Foundation for Indianapolis to develop a master cultural plan (Barbara Schaffer Bacon 1997, 21).

The arts had separate \$1 billion annual impacts on Cleveland and Cincinnati (Ohio Citizens for the Arts). Nationally nonprofit arts institutions and organizations generated an estimated \$37 billion in economic activity and returned \$3.4 billion in federal income taxes to the U.S. Treasury each year (American Arts Alliance 1996). Even in the post-9/11 economy, the arts organizations thrived (Lieber 2004).

At a time when as many as one-sixth of Indiana citizens "have workforce literacy skills below the minimum national standard for successful 21st century employment (Brinegar 2005) knowledge of the arts importance to economic development seemed to have hit the mainstream consciousness when 94 percent of people said "yes" to the

question “Do you think an arts and culture initiative should be a part of Indiana’s economic development strategy? (Inside Indiana Business 2005).

The arts have broad appeal. Whether a student or adult desires to perform on Broadway, sing in a church choir, or just listen to the radio driving home from school or work, everyone is life-long arts patron (either passively or actively).

The challenge in arts education is to design curricula that meet the need instead of waiting for the need to be met by the curricula. Needs assessment should drive curriculum rationales. It ideally would address the needs of those who are an observer/attender equally with those who are a creator/performer. It would also directly address those qualities gained from arts education that can be transferred into other areas of life—family, community, and career.

Summary

Benefits of the arts to humanity can be grouped in the following ways: 1) they are our cultural legacy, 2) they give us multiple ways and means of communicating, 3) they release the imagination using diverse approach to explore critical and creative thinking, and 4) they are connected with life lessons or aspects of humanness that embody a solid base for the foundation of an upright and respectable citizen (Ball 2003, 13).

The benefits conveyed by arts education can be grouped in four categories: 1) success in society, 2) success in school, 3) success in developing intelligence, and 4) success in life (Music Educators National Conference 2002). The nation’s top business executives agree that arts education programs can help repair “weaknesses in American education and better prepare workers for the 21st century (Business Week 1996).

President Clinton expressed skills developed by the arts as the three Cs—communication, creativity, and cooperation. By studying the arts in school, students have the opportunity to build on those skills, enrich their lives, and experience the world from an enriched perspective (Music Educators National Conference 2002). It is only when one is enriched that one can be in a position to enrich others.

The arts impact on society can also be summarized by three Cs: communicative—conveying culture and intelligence, creative—providing a means through which everyone can express themselves by discovering “the artist within” that is created in God’s image, and comforting—a source of edification and enjoyment of things and experiences pleasant and beautiful.

Every student in the nation should have an education in the arts (Consortium of National Arts Education Associations 1999). In July 1999 U.S. Secretary of Education Richard W. Riley said that Casals declares that the arts fill him with the wonder of life and the “incredible marvel” of being human, that Ives states that the arts expand his mind and challenges him to be a true individual, and that Bernstein pronounces that they are enriching and ennobling. “To me it sounds like a good cause for making the arts an integral part of every child’s education. Studying the arts elevate children’s education, expand students’ horizons, and teach them to appreciate the wonder of life (Music Educators National Conference 2002).

The arts are shown to have impact in curriculum whether through interaction, integration, or interdisciplinary studies. The arts are shown to be linked to cognitive improvement gains in particular subjects, increases in standardized test scores, and as a key means through which to understand one’s culture and others’ cultures. The arts

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

provide a means to express creativity, which has positive impact on spiritual, mental, and physical health. The arts are an often-overlooked economic driver, making major contributions to local and regional economies.

The arts present opportunities in which Costa's metacognition characteristics can flourish. Performing arts particularly offer socialization, dedication, teamwork, responsibility, attention to detail, and group dynamics and lead Dr. William Moffit (1977), the University of Houston Marching Band Director (who became Indiana's Music Arranger Laureate in 1988) to state, "The arts provide students with experiences no other activity can match."

CHAPTER III

RESEARCH METHOD

Description of Research Design

Since the data were primarily documentary in nature (written feedback) and narrative in form (interview transcripts) the historical method (Leedy 1993, 76) was used to create a causal-comparative study (Gall, Borg, and Gall 1996, 383-385).

Instrumentation

Instrumentation included responses from teachers who completed the following forms:

1. Agreement
2. Program Information
3. Evaluation

These forms captured data regarding the setting in which the program was used (community, school district, school, discipline, classes, grade levels), how the program was used and shared (student interactions and sharing with other faculty/community members), and ranking and reflection combination questions to assess to what degree the program met the teachers' and their students' needs or not.

Arts Indiana Magazine in the Classroom 1996-97 Agreement

This agreement confirms my commitment to serve as a participating teacher in the *Arts Indiana Magazine in the Classroom* program. I agree to send a note of appreciation to my sponsor, to implement the program, and to return the evaluation by the date requested.

Name _____ Department(s) _____

School Name _____

Courses, Grade Levels, Student Count & Semester in which you anticipate magazines will be used (please use an extra sheet if necessary):

Course 1: _____ Grade Level(s) _____
Number of students anticipated _____ Semester _____

Course 2: _____ Grade Level(s) _____
Number of students anticipated _____ Semester _____

Course 3: _____ Grade Level(s) _____
Number of students anticipated _____ Semester _____

School District _____

County _____

School Street Address _____

City _____ State _____ Zip + 4 _____

School Phone _____ School FAX _____

School e-mail _____

Home address _____

City _____ State _____ Zip + 4 _____

Home Phone _____ Home FAX _____

Home e-mail _____

Signature _____

continued on other side

Fig. 6 *Arts Indiana Magazine in the Classroom* 1996-97 Agreement Form

Program Information	
Estimated total number of magazines you will need for your class(es) #1 _____	
Do you receive magazines directly () or from someone else? ()	
#2	If from someone else, whom? _____
We encourage you to "recycle" magazines. Do you? Yes () No (). If so, how? Please check all that apply:	
<input type="checkbox"/> Save for archive; <input type="checkbox"/> Give to students; <input type="checkbox"/> Give to librarian;	
<input type="checkbox"/> Give to other teacher(s); <input type="checkbox"/> Give to people in my community; <input type="checkbox"/> Give to administrators;	
<input type="checkbox"/> Give to other teacher(s) to use in their classroom, if so, please list their name(s): _____	
<input type="checkbox"/> Distribute in other ways : _____	
To help us better prepare <i>Arts Indiana Magazine in the Classroom</i> to meet your needs, please place a check beside the following effective methods which could be used in or for your classes:	
#3	Read the magazine before handing out to students
#4	Read/review <i>Arts Now!!!</i> Prior to student magazine use
#5	Use at least part of <i>Arts Now!!!</i> As a teaching methods supplement
#6	Use the magazine on at least a monthly basis
#7	Introduce the magazine in an interesting way in an ongoing manner
#8	Give students home/class time for reading the magazine
#9	Use the magazine as part of course in class
#10	Students read articles
#11	Students redo ads
#12	Students redo cover
#13	Students study visuals in the magazine
#14	Students make collages from magazine
#15	A written assignment is assigned using the magazine
#16	A class discussion occurs from magazine usage
#17	Credit is given for student visits to items featured in the magazine
#18	A form for student-initiated trips has been generated and is provided to students
#19	Back issues of the magazine are available in a "resource library" for students
#20	Engage in field trips related to items in the magazine
#21	Hang covers/collages in classroom or hallway
#22	Display written work in an appropriate area
#23	Create display depicting semester/year-long magazine/student relationship
#24	Students generate a thank you to sponsor annually
#25	Attend round tables, panel discussions, and workshops sponsored by the magazine
#26	Complete annual agreement and evaluation in a timely manner
#27	Other: _____

Fig. 7 *Arts Indiana Magazine in the Classroom* 1996-97 Program Information Form

Please return by April 1, 1996, to: *Arts Indiana Magazine in the Classroom*, 47 S. Pennsylvania St., Suite 701, Indianapolis, IN 46204-3622, 317-632-7894. A business reply mail envelope is enclosed for your convenience. Or, FAX the completed form to 317-632-7966. Thank you.

Arts Indiana Magazine in the Classroom 1995-96 Evaluation

1. In what subject area(s) and grade level(s) are the students who use *Arts Indiana Magazine in the Classroom*?

Subject Area(s) _____ Grade Level(s) _____

2. Approximately how many students participate in the program? _____

3. *Arts Indiana Magazine* suits my interdisciplinary needs:

Rarely Sometimes Often Frequently

Please elaborate: _____

4. I have linked the ideas in *Arts Indiana Magazine* to math or science:

Rarely Sometimes Often Frequently

Please elaborate: _____

5. The articles lead to discussion with teachers from other disciplines:

Rarely Sometimes Often Frequently

Please cite the articles: _____

Please continue on other side.

Fig. 8 *Arts Indiana Magazine in the Classroom* 1995-96 Evaluation Form (Page 1)

6. These kinds of articles stimulate my students to discuss the materials in the magazine with one another:

7. What kind of writing assignments or art exercises are based on the articles in *Arts Indiana Magazine*? How are the assignments used?

8. The *Arts Now!!!* teacher/student guide & *Teacher Spotlight* supplement is useful:

Rarely Sometimes Often Frequently

Please elaborate and include suggestions for improvement: _____

Please continue on next page.

Fig. 9 *Arts Indiana Magazine in the Classroom* 1995-96 Evaluation Form (Page 2)

9. The visual format of *Arts Indiana Magazine* attracts my students' attention:

Rarely Sometimes Often Frequently

Please elaborate: _____

10. I focus my students' attention to how visual images in art, advertising, television, magazines, and film affect their thinking:

Rarely Sometimes Often Frequently

How do they respond? _____

11. How many of your students take the magazine home for careful scrutiny?

0-25% 26-50% 51-75% 76-100%

Please continue on other side.

Fig. 10 *Arts Indiana Magazine in the Classroom* 1995-96 Evaluation Form (Page 3)

12. If critical thinking is defined as *evaluating, analyzing, making comparisons and judgments about quality and value*, then the critical thinking skills of my students have improved as a result of this program:

Not Significantly Marginally Somewhat Significantly

Please note the ways: _____

Teacher: _____ School: _____

Please return by April 1, 1996, to: Arts Indiana Magazine in the Classroom, 47 S. Pennsylvania St., Suite 701, Indianapolis, IN 46204-3622, 317-632-7894. A business reply mail envelope is enclosed for your convenience. Or, FAX the completed form to 317-632-7966. Thank you.

Fig. 11 Arts Indiana Magazine in the Classroom 1995-96 Evaluation Form (Page 4)

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Recording

Arts Indiana, Inc., made available the Agreement, Program Information, and Evaluation forms completed by teachers (1995-96, 1996-97, and 1997-98 school years), program annual reports (1995-96, 1996-97, and 1997-98 school years), and teacher interview transcripts (1995-96).

Data was considered in the areas of Teacher Behaviors, Student Activities, Teacher Program Evaluation, and Teacher Creativity.

Parenthetical numbers refer to the Program Information form on page 86.

A yes/no determination of the following Teacher Behaviors (Evidence from Information Form and Interview Transcripts) will be made:

1. Reads magazine before handing out to students (Program Information #3)
2. Reads/reviews teacher/student guide (Program Information #4)
3. Uses teacher/student guide as supplement (Program Information #5)
4. Uses magazine monthly (Program Information #6)
5. Uses magazine as part of course (Program Information #9)
6. Magazines recycled or archived (Program Information #2, #19)
7. Display student work (#21, #22, #23)

A yes/no determination of the following Student Activities (Evidence from Information Form and Interview Transcripts) will be made:

1. Reading/studying assignments from the magazine (Program Information #8, #10, #13)
2. Creates writing, drawing, etc. (Program Information #11, #12, #14, #15)
3. Class discussion occurs from magazine usage (Program Information #16)
4. Magazine Prompted Visits/Trips (Program Information #17, #18, 20)
5. Thanks sponsor(s) (Program Information #24)

Degrees of the following Teacher Program Evaluation will be recorded:

1. Degree of interdisciplinary usefulness (1=Rarely, 2=Sometimes 3=Often, 4=Frequently)
2. Degree of Math/Science linkage (1=Rarely, 2=Sometimes 3=Often, 4=Frequently)
3. Frequency as discussion starter with teachers from other disciplines (1=Rarely, 2=Sometimes 3=Often, 4=Frequently)
4. Degree of usefulness of teacher/student guides (1=Rarely, 2=Sometimes 3=Often, 4=Frequently)
5. Frequency that visual format attracts usage (1=Rarely, 2=Sometimes 3=Often, 4=Frequently)
6. Frequency that magazine focus holds attention (1=Rarely, 2=Sometimes 3=Often, 4=Frequently)
7. Percentage of time that magazine is given careful scrutiny (1=0-25%, 2=26-50%, 3=51%-75%, 4=76-100%)
8. Degree of student critical thinking improvement (1, 2, 3, 4)

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

The following exhibit contains highlighted sections of a sample Program Information form from which data was collected. Other forms include the Agreement and Evaluation that teachers who used the supplemental resource completed:

Program Information	
Estimated total number of magazines you will need for your class(es)	#1 _____
Do you receive magazines directly () or from someone else? ()	
#2	_____
If from someone else, whom? _____	
We encourage you to "recycle" magazines. Do you? Yes () No (). If so, how?	
Please check all that apply:	
<input type="checkbox"/> Save for archive; <input type="checkbox"/> Give to students; <input type="checkbox"/> Give to librarian;	
<input type="checkbox"/> Give to other teacher(s); <input type="checkbox"/> Give to people in my community; <input type="checkbox"/> Give to administrators;	
<input type="checkbox"/> Give to other teacher(s) to use in their classroom, if so, please list their name(s):	

<input type="checkbox"/> Distribute in other ways :	

To help us better prepare <i>Arts Indiana Magazine in the Classroom</i> to meet your needs, please place a check beside the following effective methods which could be used in or for your classes:	
#3	Read the magazine before handing out to students
#4	Read/review <i>Arts Now!!!</i> Prior to student magazine use
#5	Use at least part of <i>Arts Now!!!</i> As a teaching methods supplement
#6	Use the magazine on at least a monthly basis
#7	Introduce the magazine in an interesting way in an ongoing manner
#8	Give students home/class time for reading the magazine
#9	Use the magazine as part of course in class
#10	Students read articles
#11	Students redo ads
#12	Students redo cover
#13	Students study visuals in the magazine
#14	Students make collages from magazine
#15	A written assignment is assigned using the magazine
#16	A class discussion occurs from magazine usage
#17	Credit is given for student visits to items featured in the magazine
#18	A form for student-initiated trips has been generated and is provided to students
#19	Back issues of the magazine are available in a "resource library" for students
#20	Engage in field trips related to items in the magazine
#21	Hang covers/collages in classroom or hallway
#22	Display written work in an appropriate area
#23	Create display depicting semester/year-long magazine/student relationship
#24	Students generate a thank you to sponsor annually
#25	Attend round tables, panel discussions, and workshops sponsored by the magazine
#26	Complete annual agreement and evaluation in a timely manner
#27	Other: _____

Fig. 12 *Arts Indiana Magazine in the Classroom* 1996-97 Program Information Form

Processing

The data was recorded on charts (Leedy 1980) prepared for the study from which tables depicting raw numbers and percentages (Rudestam & Newton 96-100) were reported with narrative explanations (VandeCreek, Bender, and Jordan 1994, 53-57)

Examples of the charts used:

Table 2—Arts Indiana Curriculum Study Teacher Course Use/Student Outcome Measurement

	Performing/Visual Arts Teachers (71 teachers)		Non-Arts Teachers (45 teachers)	
	Yes	No	Yes	No
Used in Course Content Statements				
Student Outcome Metrics Statements				

Table 3—Arts Indiana Curriculum Study Teacher Use of Guide Effect on Student Created Writing and Drawing Occurrences by Grade Level

	Secondary Grade Level Teachers (73 teachers)		Middle Grade Level Teachers (34 teachers)		Elementary Grade Level Teachers (9 teachers)	
	Yes	No	Yes	No	Yes	No
Used Teacher/Student Guide as Supplement (From Program Information)						
Created writing, drawing, etc. (From Program Information)						

Table 4—Arts Indiana Curriculum Study Teacher Use of Guide Effect on Evaluation of Critical Thinking

	Teachers Using Arts Indiana (116 teachers)					
	Yes			No		
	Not Significantly	Somewhat	Marginally	Significantly	Not Significantly	Significantly
Used Teacher/Student Guide as Supplement (From Program Information)						
Degree of critical thinking improvement (From Teacher Program Evaluation (from Evaluation))						

Compilation of Program Evaluation responses from teachers yielded this

auxiliary data:

How are magazines "recycled"?

- 70% Give to students
- 61% Give to other teachers
- 59% Save for archive
- 33% Give to librarian
- 25% Give to other teachers for use in their classrooms
- 19% Give to people in the community
- 14% Give to administrators
- 3% Distribute in other ways

Arts Indiana Magazine meets my interdisciplinary needs:

- 2% Rarely
- 34% Sometimes
- 30% Often
- 5% Frequently

I have linked the ideas in *Arts Indiana Magazine* to math or science:

- 49% Rarely
- 15% Sometimes
- 1% Often
- 0% Frequently

The articles lead to discussion with teachers from other disciplines:

- 26% Rarely
- 34% Sometimes
- 4% Often
- 1% Frequently

The *Arts Now!!!* and *Teaching Arts Now* materials were useful:

- 6% Rarely

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

25% Sometimes
20% Often
10% Frequently

The visual format of *Arts Indiana Magazine* attracted my students' attention:

2% Rarely
10% Sometimes
36% Often
20% Frequently

I focused my students' attention to how visual images in art, advertising, television, magazines, and film affect their thinking:

6% Rarely
25% Sometimes
21% Often
14% Frequently

How many of your students took the magazine home for careful scrutiny?

37% 0-25%
13% 26-50%
7% 51-75%
12% 76-100%

If critical thinking is defined as *evaluating, analyzing, making comparisons and judgments about quality and value*, then the critical thinking of my students have improve as a result of this program:

6% Not significantly
14% Marginally
37% Somewhat
5% Significantly

What following effective methods could be used in your classroom?

83% Read the magazine before handing out to students
70% Give students home/class time for reading the magazine
67% Read/review *Arts Now!!!* prior to student magazine use
65% Use the magazine on at least a monthly basis

An Arts-Based Supplemental Resource's Effect on Teachers Perceptions of Curriculum Integration, Instructional Materials Development, Learning Activities Selections, and Critical Thinking Improvement

- 63% Facilitate a class discussion occurring from magazine usage
- 61% Use at least part of *Arts Now!!!* as a teaching methods supplement
- 60% Use the magazine as part of course in class
- 57% Assign a written assignment using the magazine
- 56% Have students study visuals in the magazine
- 54% Introduce the magazine in an interesting way in an ongoing manner
- 54% Have back issues of the magazine available as a "resource library" for students
- 51% Have students read articles
- 49% Complete the annual agreement and evaluation in a timely manner
- 34% Have students generate a thank you to their sponsor(s)
- 33% Hang covers or collages in classrooms or hallways
- 24% Display written work
- 24% Give credit for student visits to places mentioned in the magazine
- 23% Attend roundtables, panel discussions, and workshops sponsored by the magazine
- 23% Engage in field trips related to places mentioned in the magazine
- 19% Have students make collages from the magazine
- 17% Have generated a form to report on student-initiated field trips
- 17% Have students redo ads
- 9% Create displays depicting the students semester or year-long relationship to the magazine
- 9% Have students redo covers
- 3% Use other effective methods

The data collected is as follows:

Table 5—Arts Indiana Curriculum Study Teacher Course Use/Student Outcome Measurement

	Performing/Visual Arts Teachers (71 teachers)		Non-Arts Teachers (45 teachers)	
	Yes	No	Yes	No
Used in Course Content Statements	69%	31%	67%	33%
Student Outcome Metrics Statements	81%	19%	88%	12%

Table 6—Arts Indiana Curriculum Study Teacher Use of Guide Effect on Student Created Writing and Drawing Occurrences by Grade Level

	Secondary Grade Level Teachers (73 teachers)		Middle Grade Level Teachers (34 teachers)		Elementary Grade Level Teachers (9 teachers)	
	Yes	No	Yes	No	Yes	No
Used Teacher/Student Guide as Supplement (From Program Information)	67%	33%	50%	50%	0%	100%
Created writing, drawing, etc. (From Program Information)	84%	16%	61%	39%	33%	67%

Table 7—Arts Indiana Curriculum Study Teacher **Use of Guide Effect on Evaluation of Critical Thinking**

		Teachers Using Arts Indiana (116 teachers)				
		Yes		No		
Used Teacher/Student Guide as Supplement (From Program Information)		69%		31%		
		Not Significantly	Somewhat	Marginally	Significantly	Not Significantly
Degree of critical thinking improvement (From Teacher Program Evaluation (from Evaluation)		0%	1%	12%	87%	46%
						12%
						18%
						24%

Analysis

Data suggests very little difference (2 percentage points) among arts teachers and non-arts teachers relative to using the teacher/student guides as a supplement. There is also very little difference between those groups of teachers in student-created writing and drawing (7 percentage points). This suggests a unifying factor in the program that this study did not explore.

There is greater variation between teachers who used the guides and those who did not. Among the two-thirds of the teachers who used the guides, 87 percent found significant degree of critical thinking improvement. Those not using the guide found 46 percent (the highest amount) had not significantly exhibited a degree of critical thinking improvement. This suggests the importance of using the guides.

There were 67 percent of the secondary grade level teachers using the guides who evaluated that 84 percent of students created writing and drawing resulting from the program. Exactly half of the middle grade level teacher used the guides and 61 percent evaluated student writing and drawing resulting from the program. None of the elementary grade level teachers used the guide and 33 percent of them attributed student created writing and drawing to the program. This suggests the program is more suited towards secondary level teachers and student and using the guides increasing student created writing and drawing.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Data was consistent among arts and non-arts teachers as to the use of the *Arts Magazine in the Classroom* teaching guide. More than two-thirds of arts teachers (69 percent) and more than two thirds of non-arts teachers (67 percent) believed that the use of the guide had an effect on student created writing and drawing occurrences.

Data was more demarcated when comparing and contrasting grade levels. More than two thirds of secondary grade level teachers (67 percent) believed that the use of the guide had an effect on student created writing and drawing occurrences while only half of middle grade level teachers (50 percent) and none (0 percent) of elementary grade level teachers believed so.

Of the teachers who used the guide (69 percent), 87 percent of that group believes their students demonstrated a significant degree of critical thinking improvement. That is a contrast with the teachers who did not use the guide (31 percent) among whom 46 percent believe the degree of critical thinking improvement was not significant.

That is further contrasted by the next highest percentage (24 percent) of the teachers who did not use the guide that believed students experienced a significant improvement in their degree of critical thinking.

None of the teachers who used the guide (0 percent) indicated the degree of critical thinking improvement was not significantly impacted.

Conclusions

This study provides evidence that the *Arts Indiana Magazine in the Classroom* program (magazine and teaching guide) have greatest impact at the secondary grade level.

Anecdotal evidence from interviews suggest teachers using the resource are resource seeking. As such, among those using the program 63 percent are secondary grade level teachers, 29 percent are middle grade level teachers, and 9 percent are elementary grade level teachers.

Use of the teaching guide drops dramatically by grade level (67 percent to 50 percent to 0 percent among secondary, middle, and elementary grade level teachers respectively).

This study also produced evidence that using the guide has an impact on the degree of critical thinking improvement by students as evaluated by their teachers. A majority of the teachers using the guide evaluated that students demonstrated a significant degree of critical thinking improvement while nearly half (46 percent) of those who did not use the guide evaluated that degree of critical thinking improvement was not significantly impacted.

This student suggests that use of the teaching guide as having an effect on student created writing and drawing occurrences is the virtually the same among arts and non-arts teachers:

Arts Teachers—69 percent used guide and 81 percent reported effect on student created writing and drawing occurrences

Non-Arts Teachers—67 percent used guide and 88 percent reported effect on student created writing and drawing occurrences

Recommendations

The consistency among teaching disciplines (arts and non-arts) in the use of the teaching guide and the differences among grade levels (secondary, middle, and elementary) suggest a deeper study could explore what are the unifying elements among disciplines and the factors causing differences among grade levels.

Further study could analyze data in each of the 23 areas of Teacher Behavior, Student Assigned Activities, Teacher Program Evaluation, and Teacher Creativity will be analyzed by the following comparisons:

1. Interdisciplinary (Performing/Visual Arts, Language Arts, Miscellaneous [Adult Education, District Inservice, Elementary, Library, Math, Special Education])
2. Grade Level (Elementary School, Middle School, High School, University, Adult)
3. Among All Elementary Teachers
4. Among All Middle School Teachers
5. Among Teaches of Middle School Performing and Visual Arts
6. Among Teachers of Middle School Language Arts

7. Among Teachers of Miscellaneous Middle School Disciplines
8. Among All High School Teachers
9. Among Teachers of High School Performing and Visual Arts
10. Among Teachers of High School Language Arts
11. Among Teachers of Miscellaneous High School Disciplines
12. Among Teachers of University Disciplines
13. Among Adult Education Teachers
14. Among Teachers of Same Disciplines at Same Grade Level

Analysis could include determining percentages of teachers for whom evidence of an occurrence in each of the 23 areas is present as well as a total of the number of areas within the four categories included occurrences including brief descriptions of Teacher Creativity in the Curriculum Integration, Curriculum Materials, and Learning Activities.

The final reporting could reveal whether Teacher Behaviors, Student Activities, Teacher Program Evaluations may have influenced Teacher Creativity.

A deeper exploration of anecdotal evidence of Teacher Creativity could also gathered from the Evaluation Form (Questions #6 and #7), Interview Transcripts, and Annual Reports with examples documented and clustered (Boyatzis 1998, 140-143) in four categories:

1. Curriculum Integration: To what degree were integrated into non-arts courses or non-arts activities were integrated into arts courses.

2. Curriculum Materials: The design of original curriculum and instructional materials that were developed as a result of using the magazine or its guides.
3. Learning Activities: The kinds of original learning activities that were inspired or prompted by the magazine and/or its guides.
4. Critical Thinking Skills: Degree of critical thinking improvement as assessed by teachers using the program.

Further examination could also explore whether evidences of teacher creativity corresponding to the segmentation of the arts and arts education exist suggested by review and categorization of current scholarship:

1. Link to Christian Education
2. Steward of Culture
3. Channel to Self Esteem
4. Impact on Capacity to Learn and Ability to Achieve
5. Compatibility to Multiple Intelligences and Multiple Literacies
6. Link with Aesthetics
7. Fostering Creative and Critical Thinking and Writing Skills
8. Multidisciplinary and Integration Effects
9. As Academic Subject
10. Co-Usage of Supplemental Resources

11. Lifelong Affects

12. As Economic Driver

This study closely explored the impact of the arts on critical thinking. Current scholarly studies indicate that arts students achieve more in several subject and social areas than non-arts students.

This suggests an even broader examination of interdisciplinary education is in order. To what degree to other subject areas and student activities have on student performance overall?

Is graded and somewhat isolated subject area education the best approach and most relevant or is it maintaining what we are used to because we have never thought of different models?

Findings from this study suggest there may be more evidence awaiting discovery that could help frame new ways of education delivery.

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APPENDIX A
CONSENT FORM

Arts Indiana provided multiple years of Agreement, Program Information, and Evaluation forms completed by teachers (1995-96, 1996-97, and 1997-98 school years), program annual reports (1995-96, 1996-97, and 1997-98 school years), and teacher interview transcripts (1995-96).

The forms completed by the teachers (Agreement, Program Information, and Evaluation) notified teachers that their responses were subject to use by Arts Indiana, Inc. Many teachers' comments are contained in the organization's annual reports.

Likewise, protocol for teacher interviews included notifying them that information they provided would be used for further research, operations, and to secure funding as Arts Indiana, Inc., was a not-for-profit organization. Those interviews were captured on audio recording and transcripts and interviewer notes made of each.

APPENDIX B

STYLE MANUAL STATEMENT

A Manual For Writers of Research Paper, Theses, and Dissertation by Kate L.

Turabian facilitated by StyleEase software was used in this dissertation.

APPENDIX C

REALIABILITY AND VALIDTY DATA FOR MEASURES USED

Arts Indiana provided multiple years of Agreement, Program Information, and Evaluation forms completed by teachers (1995-96, 1996-97, and 1997-98 school years), program annual reports (1995-96, 1996-97, and 1997-98 school years), and teacher interview transcripts (1995-96).

Having several years of data from several sources was essentials in providing consistent and accurate information on which this study is based on which its analysis and conclusions are drawn.

APPENDIX D

MEASURES USED AND INSTRUCTIONS FOR THEIR USE

As this is an historical study of the Arts Indiana Magazine in the Classroom program, there were no measures designed specifically for this study.

At the end of each academic year and in preparation for continuing in the program for the next academic year, teachers completed Agreement, Program Information, and Evaluation forms. Examples of these forms are contained in the body of this study including the instructions to teachers for completing them.

APPENDIX E

SCORING SYSTEMS FOR MEASURES

This study limited itself to the secondary, middle, and elementary grade levels using the *Arts Indiana Magazine in the Classroom* program.

Within these groups were 116 teachers. Simple percentages of arts/non-arts teachers and secondary/middle/elementary grade levels were used in presenting data from the program information studied.

AUTHOR NOTE

I further appreciate the students, parents, teachers, and administrators who used and were impacted by *Arts Indiana Magazine in the Classroom*.

I am also indebted to colleagues at Arts Indiana, Inc., who made the organization strong, mission-oriented, and true to its values at all times.

NOTES

Here's hoping that true interdisciplinary education will take root and produce harvests of inspired, creative, and critical thinkers who will be all that God created them to be.