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ABSTRACT

Mixed methodology was used in the formative evaluation of an integrated Arts-in-Education program during the first year of a 3-year program involving four schools and three grade levels (grades 2, 6, and 10). A quantitative/qualitative survey instrument was administered to approximately 400 students to help assess the success of the program. Surveys were analyzed by coding all questions (quantitative and qualitative) into descriptive variables. New variables were formed during the analysis process, resulting in enriched outcomes and greater understandings. Strong student support and enthusiasm for the program, strong and positive evidence of integration of the arts curriculum content at all grade levels, and strong evidence of the curriculum's span of multiple intelligences and multiple learning areas were found. Implications for year two of the program and its evaluation are discussed. An appendix summarizes information about learning standards, multiple intelligences, and learning areas. (Contains 17 references.) (Author/SLD)

METHODS OF MEASURING AFFECTIVE IMPACTS FROM INTEGRATING THE ARTS INTO CORE CURRICULA

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METHODS OF MEASURING AFFECTIVE IMPACTS FROM INTEGRATING THE ARTS INTO CORE CURRICULA [1]

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Mixed methodology was used in the formative evaluation of an integrated Arts-in-Education program during the first year of a three-year program involving four schools and three grade levels. A quantitative/qualitative survey instrument was administered to approximately 400 students to help assess the success of the program. Surveys were analyzed by coding all questions (quantitative and qualitative) into descriptive variables. New variables were formed during the analysis process, resulting in enriched outcomes and greater understandings. Implications for year two of the program and its evaluation are discussed.

Introduction

Programs that integrate the arts into core curricula are increasing in number as school budgets decrease, arts programs are cut, and/or the recognition of value in aesthetic education increases. Debate rages within the world of arts education concerning the merits of such integration; yet, little is known about the success or failure of programs that integrate arts into the core curricula. The lack of adequate numbers of research studies in this area is largely due to the unknown and unique nature of the variables under consideration.

Qualitative methodologies involving extensive observations and immersion in the setting have been advocated as the most appropriate means of examining integration in a natural setting (Bresler, 1995). Some researchers are advocating the value of using mixed methodologies in these settings. A conceptual framework for such designs was developed by Greene, Caracelli, & Graham (1989) through their analysis of 57 empirical, mixed-method evaluations. Based upon their findings, this paper affirms the use of the multiple-method design for complementarity purposes. This method uses the qualitative and quantitative approach to measure overlapping but also different facets of a phenomenon, yielding an enriched, elaborated

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understanding of that phenomenon. The purpose of this paper is to provide an increased understanding of the value in using mixed methodologies for evaluations of programs in the arts.

Background

While most educators acknowledge the value of arts education, there is much we do not know about the impact of teaching the arts. Elliot Eisner, advocate for the arts in education, points out that we do not know:

> * whether there are certain critical periods in human development during which the ability to learn how to attend to and respond to the fine arts is optimal
>
> * whether neglect of the arts during these periods severely diminishes the probability that individuals will be able to respond to them at a later date
>
> * whether experience in arts activities fosters the development of imaginative abilities that transfer to other fields
>
> * how effectively the arts can be taught in schools or classrooms where the pervasive atmosphere is anti-aesthetic and anti-imaginative
>
> * what kind of people or society we could develop if schools spent as much time teaching the fine arts as they now spend teaching the three R's
>
> * the extent to which teachers who themselves have limited backgrounds and abilities in the fine arts can teach them effectively (1980, pp. 598-599).

Psychologists and educators have worried about the answers to these and other questions relating to the study of art for many years. Lev Vygotsky stated in his *Psychology of Art* (1971, p. 259), "Psychological investigation reveals that art is the supreme center of biological and social individual process in society, that it is a method for finding an equilibrium between man and his world, in the most critical and important stages of his life". John Dewey, in his *Art as Experience* (1934), espoused that aesthetic experience is the ultimate human experience and that its presence in

schools is one of the highest virtues of meaningful education. Eisner has more concretely outlined what children learn when they paint: they can create images from materials and feel satisfaction from so doing; the images they create can also be symbols; symbolic images can be used as vehicles for symbolic play; the process of image-making requires the making of judgments; images can be related to other images to form a whole; they can develop skills that make it possible for them to create illusion and to form images that are visually persuasive; ideas and emotions that are not physically present can be symbolized by images; there are ideas, images and feelings that can only be expressed through visual form; and, the world itself can be regarded as a source of aesthetic experience and as a pool of expressive form (1979a, pp. 109-115).

Regarding the evaluation of arts programs and curricula in schools, Eisner has further commented:

> There is, of course, nothing wrong with knowing how well or how poorly a student performs. Yet schools, insofar as they are educational institutions, should not be content with performance. Education as a process is concerned with the cultivation of intellectual power, and the ability to determine what a student knows is not necessarily useful or sufficient for making that process more effective...they focus almost exclusively on the products of the enterprise...while they neglect the conditions, context, and interactions that led to these consequences. In practical terms, they provide very little that is of use to the teacher in order to know what to alter or what to maintain in the course of teaching or in the design of the curriculum (1979b, pp. 11-12).

Eisner feels that in our rush to "develop a science of education," we have limited our conception of what constitutes cognition (1979b, p. 14). Essentially, what cannot be measured by numbers is considered noncognitive. The response to these issues has been the development of qualitative research methods, as advocated by Eisner through the concepts of educational connoissuership (the art of appreciation) and educational criticism (the artistic description of events, their interpretation and appraisal).

As the value of qualitative research has become more widely recognized (Denzin, 1978; Marshall & Rossman, 1989; Patton, 1990), the measurement of attitudes, feelings, and emotions of those involved in evaluations is also becoming more valued (Dereshiwsky & Packard, 1992). While a large body of research regarding Arts-in-Education (AIE) programs has not yet developed, the studies that do exist represent both the purely qualitative and the mixed-methodologies.

A formative evaluation of a three-year AIE program in 11 urban schools used quantitative data in the form of self-report questionnaires, structured interviews, and structured classroom observations during the first year to compare student perceptions of the classroom learning environment, degree of program implementation, arts-related activities, and course evaluation. No program effects were discerned. Since evaluators felt there was a program impact, the second and third year evaluations were changed to semistructured, open-ended observation and interview instruments. As a result of the change in evaluative techniques, patterns became discernible from transformed qualitative data, and new variables were created through a merging of qualitative and quantitative data. It was discovered that the variable, "principal support," was significantly correlated with the extent of program implementation ($r = .74$, $p < .01$)--a fact not apparent before the merging of both types of data (Talmage & Rasher, 1981).

The Minnesota Center for Arts Education examined its interdisciplinary education efforts through a focus group research project in the spring of 1991. Twenty-six Arts High School students and fourteen teachers took part in meetings to identify factors that positively affect interdisciplinary education. Their findings included: flexible attitudes on the part of the teachers; adequate preplanning time for the teachers; preservice and inservice education for teachers; use of a variety of participatory, hands-on teaching and learning strategies; discovery of natural linkages between areas; opportunities for team teaching; and, opportunities for

student cooperative work as well as individual work (Minnesota, 1992).

A survey of 22 Arts in Education programs (Simmons, 1996) revealed a shift from short term projects to long term projects attributed to "the desire to realize more fully the potential of arts to transform students' lives and education itself." In addition, it was found that: participating teachers consistently developed greater confidence regarding artworks and a broader perspective on themselves, their students, art, and pedagogy; and, greater emphasis needed to be placed on the role of the teaching artists' development of pedagogy and the philosophy of aesthetic education. Similarly, the current evaluative study is a long-term project that addresses Eisner's issue of utility for teachers.

Methodology

The AIE program evaluated in this study began during the fall of 1995 in four communities near Albany, New York. The purpose of this formative evaluation was to provide information for the program staff to use in the development of activities for the second and third years of the AIE program, and to provide initial assessment of curriculum integration, student outcomes, team building, and future needs for continued integration in the second program year.

A mixed methods approach to evaluation was used to collect and integrate evaluation data. Measures taken to collect the data included: observations of artist residencies, staff planning sessions, and classrooms; administrator (arts coordinators, principals and superintendents), teacher, and artist interviews; and, paper/pencil surveys of second grade parents and of all involved students. Only the paper/pencil student survey and the classroom observations (relating to the objectives of curriculum integration, student outcomes, and future integration needs) are examined in this paper. The student survey, which obtained information from the student viewpoint, was distributed to the approximately 400 students involved in the project at four schools and at three grade levels (second, sixth, and tenth). Both the survey

and the classroom observations occurred during the spring of 1996.

A data analysis strategy was developed which allowed descriptive analysis of all coded survey questions on SPSS (the Statistical Package for the Social Sciences). Initially, codings were based largely upon variables taken from the New York State Framework for the Arts (see Appendix). Where choices could be made between a more quantitative analysis versus a more qualitative analysis, the qualitative methodology (with its apparent greater applicability to the arts) was selected.

Examination of the preliminary results from the student surveys revealed that they were not measuring the objectives adequately to provide meaningful feedback for future curriculum impact. New variables were then created for analyzing the classroom observations in order to broaden the contextual analysis of the qualitative data into explanations that teachers could more readily utilize (as suggested by Eisner, 1979b). The development of these new variables centered around key theories of intelligence and curriculum: Howard Gardner's Theory of Multiple Intelligences and the Nowakowski, et al., model of learning areas (see Appendix). Results of all data analyses were interpreted and reported in an integrated fashion, resembling the Data Consolidation/Merging strategy developed by Caracelli & Greene (1993).

Results & Implications

"From a psychological point of view, the role of criticism is to organize the effects of art" (Vygotsky, 1971). Applying this statement to educational evaluation, Elliot Eisner might call this criticism "educational criticism" (1979b) and its effects would be organized through the results obtained from studies such as this AIE program evaluation.

Major outcomes resulting from this study (related to the student survey and classroom observations) were determined to be: Strong student support and enthusiasm for the program; strong and positive evidence of integration of the arts

curriculum content at all grade levels; strong support of the New York State Framework for the Arts (and learning standards); and, strong evidences of the curriculum spanning the multiple intelligence and multiple learning areas across all three grade levels. In addition to the continued and enhanced support of all the major outcomes, needed improvements for year two of the AIE program curriculum became clear: the inclusion of more curriculum areas into the arts integration program; stronger emphasis on integration into the standard curriculum (reducing the need for pullout situations); recognition of the arts as cognitive (as well as affective) learning areas; and, recognition of the arts as consisting of both active and passive modes of learning.

Implications for year two of the AIE program evaluation were: further refinement of the measures established, including expanded codings and expanded analysis of current variables; the addition of another set of grades (3rd, 7th, & 11th) the collection of longitudinal data; the addition of new methods of data collection (student interviews, teacher/artist focus groups) for triangulation purposes; raising the analytical methodology to a multidimensional level across instruments and constructs; and, continuing the search for new variables to further enrich the evaluative design for programs in the arts.

From this first and most formative year, a foundation was established upon which could be built a complete structure--capable of recognizing the cognitive value in the arts and AIE programs, capable of providing the feedback and motivation needed by teachers and administrators for program continuance and improvement--and, capable of enriching future evaluations through the knowledge that new variables and methods reflecting higher levels of understanding and synthesis could continue to be developed for programs in arts education.

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Appendix

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The four learning standards:

1. Creating, performing, and participating in the arts;
2. Knowing and using arts materials and resources;
3. Responding to and analyzing works of art;
4. Understanding the cultural dimensions and contributions of the arts.

Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books.

The seven intelligences:

Musical
Bodily-Kinesthetic
Logical-Mathematical
Linguistic
Spatial
Interpersonal
Intrapersonal

Nowakowski, J., Bunda, M. A., Working, R., Bernacki, G. & Harrington, P. (1985). A handbook of educational variables: A guide to evaluation. Boston, MA: NijhoffPublishing.

The seven learning areas:

Intellectual
Emotional
Physical & Recreational
Aesthetic & Cultural
Moral
Vocational
Social

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