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ABSTRACT

This study deals with variables affecting the successful introduction of a program in aesthetic education. The Aesthetic Education Project is an innovative elementary level art program that reduces the traditional emphasis on skill development while increasing the emphasis on perceptual development, art appreciation, and appreciation of the creative process. Since this program is significantly different from most art programs, variables related to diffusion and teacher acceptance of the program are explored. Crossbreak analysis of questionnaire data obtained from 171 teachers indicates that: (1) teachers' perceptions of goals appropriate to a given group of students are influenced more by perception of general goals than by specific goals suggested by the innovative materials; (2) the effect of teacher input to the decision making process and future use of the materials is low; (3) teachers who helped initiate the program are more committed to the precepts of the program than to the materials themselves; and (4) the stronger the belief of teachers in their own sufficiency as purveyors of the arts, the more likely they are to use and recommend the materials. The largest factor influencing future use of the program, aside from philosophic commitment to it, is positive or negative student response which itself showed little relationship to ability and socioeconomic status. (Author/DE)

Variables Affecting the Successful Introduction of an Innovative Program in Aesthetics

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Introduction

The Aesthetic Education Project of CEMREL, Inc. is developing a general program in the arts for use in the elementary school. Its materials, primarily in the form of educational packages, have been under development since 1969 and 12 packages are presently available through the publisher, The Viking Press/Lincoln Center for the Performing Arts, with others now being released at a rate of approximately six per year. The completed elementary school series will consist of approximately 40 packages, all of which will have commenced development by the end of 1975.

One intent of the Aesthetic Education Program is to reduce the emphasis on skill development as a goal of arts education in the schools, while increasing attention to such matters as perceptual development, an appreciation of the multiple perspectives from which one can view human expressive behaviors--audience, performer, and creator--and an appreciation of the creative process itself. As an outgrowth of this de-emphasis of skill development, significantly less technical knowledge of the arts is required of the teacher. Thus, although a number of possible implementation patterns are possible, it is one expectation that regular classroom teachers will be able to successfully use Aesthetic Education Program materials.

These fundamental shifts in focus will inevitably require some changes in the role perceptions and attitudes of teachers. To facilitate the changes required and promote adoption of this approach, it has been seen as important to explore the question of what variables are related to teacher acceptance of the Aesthetic Education Program and the attendant

pedagogical philosophy.

In 1971 the Program initiated a large-scale implementation of Aesthetic Education in the state of Pennsylvania. The plan for this trial was based on an agreement made among CEMREL, the Pennsylvania State Department of Education, and the local school districts in Pennsylvania. It anticipated that the contributions of CEMREL, the Pennsylvania State Department and Title III sources would be more intensive in the early years of the project, with responsibility later gradually shifting to the local school districts. As of 1973-74 the program was being used in 78 schools representing 29 districts. (Edwards and Kahan, in press).

Through this plan, the Aesthetic Education Program has had the opportunity to conduct extended pilot trials of its materials. Since 1971, packages developed at CEMREL have been sent to the participating schools in the Pennsylvania program where they have now been used with over 6000 students. During the first year of the project, the 1971-72 school year, five packages were delivered to nine participating schools. Evaluation activities at this stage of the project consisted of the use of a non-participant evaluation team who wrote a comprehensive report on the first year of the project (Smith and Shumacher, 1972) and a year-end questionnaire which gathered information on both student and teacher reactions to the specific sets of materials being used (Lane and Kunkel, 1973).

For the 1972-73 school year, the number of participating schools was increased from nine to thirty-five in twenty-six districts and the number of packages in use was increased to ten. The study reported herein is an outgrowth of evaluation activities undertaken during the second year of this project.

Methodology

During the winter of 1972-73, with twenty-six districts now participating in the program, a new teacher questionnaire, providing for a broader evaluation of the Pennsylvania experiment, was seen as feasible. Ideas for the revision of the questionnaire were based on both general and program-specific needs. Studies of the diffusion of innovations have seen certain variables emerging as central to the success of the diffusion effort irrespective of the field influenced, e.g., medicine, education, and agriculture (Rogers, 1962; Eicholz and Rogers, 1964). Furthermore, certain questions more unique to the Program's particular areas of concern had been identified by the staff as critical issues in determining the future of the aesthetic education approach to instruction in the arts.

With respect to the general question of the diffusion of innovation, previous research alerts us to the saliency of certain classes of variables. The importance of commitment of personnel at the professional level is perhaps most prominent. In one of the most important studies of change in American schools, Mort and Cornell (1941) pointed out that,

"Observations of the diffusion of nine adaptions in 48 systems show that the professional group, rather than the public, usually takes the initiative. . .(p. 311)."

In particular, the literature on diffusion is replete with evidence supporting the importance of peer influence in effecting the decisions of relatively later adopters (Rogers, 1962; Ross, 1958; Lionberger, 1965;).

In summarizing the literature concerning the influence of teachers as educational adapters, Ross (1958) has gone even further in suggesting teacher variables as necessary to a successful diffusion effort:

"Teacher understanding and support of adaptions, and willingness

to try them out, probably contributes materially to both the chances of changes being made and the genuineness of the adaption if they are made (p. 440)."

The teacher's role in the decision to adopt an innovation has also been indicated as a critical diffusion matter by some authors. A number have argued for the centrality of the individual adopter in the success of such an effort (Carlson, 1965; Rogers, 1962). A strong statement of the rationale for this position is that of Galen Saylor that, ". . .the people who are to make such changes. . .must themselves favor such changes, understand the reason for a change, (and) be sympathetic with the new programs. . . .(1965, pp.viii-ix)." Others would argue that whether or not the teacher is involved in the decision to introduce change may be a matter of little importance (Wiles, 1962a, 1962b).

What factors having particular import for aesthetic education have previous authors noted as likely to affect teacher attitudes and recommendations? One of the characteristics of innovation that affects its rate of adoption is its compatability with the values of the adopters. Previous authorities (Rogers, 1962, p.127ff.;Miles, 1964, p.637ff.) have suggested that if the innovation puts forth ideas which are at variance with established values, the latter must first be altered before acceptance will become widespread.

The Aesthetic Education Program was viewed as potentially at variance with established values in two major areas. First, the goals of the program clearly imply a shift from a skill development approach in arts education to one based on appreciation, perception, and involvement. The nature of this involvement and the attendant emphasis on process, in turn, mitigate against the maintenance of authoritarian classroom structure so that both the product and process of aesthetic education are potentially in conflict with teacher values.

Second, program materials are designed to function primarily as resource units for regular classroom teachers rather than arts-specialist teachers which suggests the need for a re-examination of role, responsibility, and the place of specialized training in teaching the arts.

Other salient program-specific concerns identified internally were elitism and teacher tendencies to generalize their attitudes toward individual packages. The elitism issue stems from a natural concern of the program that despite its efforts to develop a curriculum based on the notion of "the arts for every child," Aesthetic Education might nevertheless acquire an "arty" reputation--that it could only be used successfully with the privileged either economically or intellectually.

The information to be gathered on the usage of particular sets of materials was seen as primarily formative in nature. The program, having suggested no particular way in which the materials were to be woven into the curricular cloth, was interested in letting teachers and other school personnel make varied determinations in this regard to see what patterns of usage would evolve naturally. Additionally, however, knowledge of which teachers had used which sets of materials would allow us to examine whether attitudinal information might vary systematically over the various packages and provide evidence of how teachers generalized attitudes toward specific packages to the program as a whole.

The concern for the issue of generalization was primarily related to a specific set of materials which previous evidence had indicated was potentially at odds with certain program goals. There was fear that

disenchantment with this package on the part of some teachers might cause them to disavow the program as a whole rather than the isolated element.

As a second-year questionnaire seemed to provide an excellent opportunity to assess how these various factors would be likely to affect the further diffusion of the Aesthetic Education Program, such a questionnaire was developed and sent out in the spring of 1973. The distribution and collection of the questionnaires was performed by Ms. Suzanne Dudley Hoffa who had been the resident coordinator of program activities in Pennsylvania and liason between State Department of Education, the schools, and CEMREL since the inception of the Pennsylvania experiment.

Univariate examination of the data resulting from the 1972-73 questionnaire (Lane and Wright, 1973) was quite encouraging to the CEMREL staff. The level of overall acceptance was good and of the 139 classroom teachers and 32 specialist teachers returning the questionnaire--an exhaustive sample to the best of our knowledge--none reported definite plans to discontinue use of the Program. The nature of the additional questions included in the questionnaire was such, however, that a meaningful analysis of them could be done only through examining the interrelationships that lay between them. In order to present this data in a readily interpretable fashion, a cross-tabular analysis was planned, making simple counts of the number of individuals using each of the possible combinations of responses to a given pair of items.

For this purpose it was necessary to make certain modifications in the data. From the 74 items that comprised the questionnaire, approximately half were chosen to create the discrete variables necessary for further study.

Most of the items used were those based on the questions of interest previously outlined. One further item, grade level of students, was added as a result of findings in the first stage of analysis.

Transformations of the variables were made in some cases. Two were the result of an dichotomization after considering responses over a group of related questions. Others were modified by the simple combining of response categories in order to bring cell expectations up to the minimum number needed to produce meaningful chi-square values.

The final variables used in the extend analysis of the questionnaire can be divided into six major categories. They were:

1. Consequences of the implementation: present teacher attitude the program and aesthetic education as a whole; perception of its success with students.

As a resultant in its own right, teacher attitude could be defined in a number of ways and three items were included that were each felt to tap a somewhat different dimension of attitude. The first was general and simply asked teachers to classify their present feelings toward the program as "enthusiastic," "accepting," "ambivalent," or "reluctant." At this stage of the analysis we decided not to consider the difference between the "accepting" and "ambivalent" as reliable and choose to combine these categories into a single one for further analysis. The second question considered was whether teachers planned to continue use of the program in the future. As no definite negative responses to this item had been noted in the initial analysis, the responses were simply divided into "positives" and "unsures" and the variable termed "program stability." The third measure was response to an item regarding the teacher's willingness to recommend the program to others. Respondents were given the choice of making a total recommendation, a partial one,

or none at all. As only two teachers had indicated they would not give at least a partial recommendation of the program, they were combined with the "unsures" for the cross-tabular study.

A fourth attitudinal variable, attitude toward the importance of aesthetic education as an area of study, was not strictly program-specific and was used as a measure of devotion to the concept of aesthetic education. Teachers classified aesthetic education as "more important", "of equal importance", or "less important" with respect to other areas of the school curriculum.

Measures of program success that were only partly attitudinal in nature involved teachers' assessments of the degree to which students participated in package activities and the level of student enjoyment of them.

2. Conditions of the implementation decision

The univariate analysis of the data had indicated that implementation of the program had come about in a great variety of ways. Some of the teachers involved had been instrumental in having the program placed in their rooms. At the other extreme, it appeared that large doses of persuasion had been necessary and the primary decision to use the materials had been made by school or district administrative personnel. Despite the majority of cases lying somewhere between these extremes, it was possible to make a fairly accurate classification of each teacher as either involved in the decision that led to the use of the program or uninvolved. This variable thus had potential for providing some clues as to the differential effects of implementation-decision locus on the success of diffusion efforts.

In a related item, teachers were asked to categorize their initial attitude toward the use of Aesthetic Education materials in their classrooms much as they did in responding to consequent attitude. The response categories were again compressed to three levels.

3. Orthoperception of goals and classroom process in instruction in the arts

In studying the matter of teacher perception of Program goals and classroom process, dichotomous variables were created. In the first case this was done by taking each teacher's ranking of six instructional goals in the arts, calculating a root mean square deviation from an ideal ranking (i.e., one based on the program staff's own perceptions). The resulting measures were then dichotomized at the median. A somewhat similar procedure was used to create an instructional attitude scale--a measure of the teacher's style of classroom mangement--using four question relating to implementing the program in an open, loosely controlled classroom versus a more conservative, structured one.

4. The role of teaching specialists in Aesthetic Education and special training in the arts.

Attitude toward the role of the arts-specialist teacher was assessed by means of an item which asked teacher to react to the statement "The specialists in art, music, etc. should have primary responsibility for instruction in aesthetic education." Responses were in terms of strong agreement, mild agreement, mild disagreement, or strong disagreement. The special training item was a simple self-assessment of whether the teacher's own background in the arts indicated special qualifications as a teacher in the area of aesthetics.

5. Characteristics of the students instructed

Teachers were asked to categorize the students with which the Aesthetic Education Program had been used by ability level; high, average, or low.

Median family income data for the corresponding school was based on a report by the school principal. To form a dichotomy for the latter variable, a high income school was classified as one where the median family income exceeded $10,000. Through these two variables we hoped to foreshadow the potential of elitism as a factor in the further diffusion of the materials.

A third variable was added to this category, based on the results of the univariate analysis of the data. The initial data had shown a surprisingly large number of teachers using the Program with kindergarten, first, and second grade students and although no specific grade limitations are imposed by the materials--grade level is only suggested by the reporting of the principal grade at which the materials were used during their development--there was some fear that problems might be encountered in their use with younger children. Accordingly, the sample was dichotomized by grade level--kindergarten through grade two constituting the low group--and this variable used in further analysis.

E. Generalization of packages

As previously mentioned, inclusion of this topic was based on a particular set of materials that, a priori, had been pointed out to suffer from a lack of congruence with the basic thrust of the program. The corresponding variable was simply a matter of "used" and "did not use" the package in question.

Results[1]

No significant relationships existed between the teacher attitude measures and the measures undertaken to explore the elitism issue. Neither income nor ability level of the students appeared to be critical factors in implementing a successful program. There were, nevertheless, some interesting relationships which came to light as a result of this part of the study. A sizeable inverse relationship between the income variable and teacher perception of student enjoyment of the program was paramount. A second relationship of significance was seen as suggesting an explanation for this result, however. Analysis of the relationship between the instructional attitude scale and median income showed a strong tend ncy for teachers in higher income schools to be more liberal in their attitudes toward the free and open classroom style that the program attempts to foster. As the Program materials are written with the less structured classroom in mind, they undoubtedly establish a certain lower bound of openness that would be difficult to circumvent, by even a highly conservative teacher. It was therefore suggested that the higher level of student enjoyment in lower income schools was an outgrowth of what was, in effect, a forced liberalization of the more conservative style of teaching found in these schools.

The only significant relationship resulting from the study of the ability level variable was a strong relationship with teacher perception of program goals. A number of hypotheses might be generated by this finding but the one having the strongest immediate appeal is that when dealing

[1] Some of the more important tables upon which this discussion is based are found in Appendixes A and B.

with innovation, a teacher's perception of goals appropriate to a given group of students is influenced more by perception of appropriate goals in general than by the specific goals suggested by the innovation at hand. While this may simply be another way of saying old ideas die hard, it remains a significant matter to be considered by anyone dealing with innovation. In the case of the Aesthetic Education Program, this may suggest that teachers of lower ability student tended to stress those aspects of the arts that are simplest to teach, the "How to do" skills rather than the "How to See" and "How to Feel" that the program sees as critical. While there probably exists (and possibly with some justification) a low ability teaching syndrome--instruction toward those goals which give such students immediate rewards--this practice runs somewhat counter to one of the basic precepts of the aesthetic education movement. The lower ability student probably has a relatively higher chance of encountering the arts as perceiver and feeler (rather than producer) than his more able counterpart. While it may be easier to teach him how to throw a pot than to make him aesthetically sensitive to his everyday environment, there is little doubt which of these abilities going to have a greater ultimate utility for the majority of students.

Although the grade level variable showed no statistically significant relation with any single outcome variable, teachers using the materials in lower grades showed a slight but consistent tendency toward a less positive attitude toward the Program.

The decision locus variable had a surprisingly low relationship with present teacher attitude toward the program. While "decision" did have, as expected, a statistically significant relationship with expressed initial attitude, its relationship with certain other important variables

was much more meaningful. The attitude variables bearing the highest relation to decision locus were those formed from teacher reactions to the statements regarding the importance of aesthetic education and the role of the specialist in instruction in the arts. On the other hand, the relationship between decision locus and the respondents stated plans for future use of the program was dramatically low. Teachers who helped initiate programs were thus more characterized by commitment to important precepts of the program than they were by commitment to the materials themselves.

The process by which teachers were chosen to participate in the Pennsylvania project made the immediate collection of an initial teacher attitude virtually impossible. The initial attitude variable used in this study was therefore a recollection on the part of the teacher and thus subject to a certain amount of invalidity. (People do have a tendency to portray themselves as consistent in their beliefs.) Although the examination of relationships with post hoc, initial attitude must therefore be treated as potentially biased, the relationships that were found seemed consistent with other questionnaire findings and with appropriate reservation, the initial attitude variable was treated on an equal basis with other measures.

Teachers reporting a high initial attitude were far and away the best perceivers of the goals of the program, this correlation exceeding .3 while that between present attitude and goal perception was a much more modest .13. This same relationship also held true for classroom instructional attitudes with the high initial attitude group being rather more committed toward a liberal, easy-going classroom atmosphere.

The relationship between initial and present attitude is, of course, the most dangerous to interpret, given the post hoc reporting of both. It was nevertheless striking that of the 51 teachers reporting a presently enthusiastic attitude toward the use of Aesthetic Education materials, only one of these came from the group of 16 classroom teachers who, according to their own recollection, entered the trial with skepticism or reluctance.

The question of generalization motivated by the set of materials felt to be less in the aesthetic education mainstream could not be answered conclusively. As in the case of the grade varaible, these materials evoked consistently lower attitude but no single relationship reached statistical significance. Since the time of the data collection, however, revisions have been made in these materials in an attempt to bring them more into line philosophically with other program materials. The broader question of generalization is still in need of research, however.

Perception of the role of the content specialist in aesthetic education has already been mentioned as showing a significant relationship to teacher initiation of the program. A number of other potentially important relationships, however, were derived from study of this variable. Teachers who felt that content specialists should have the primary responsibility for instruction in the arts were also characterized by a less strong commitment to the importance of aesthetic education, poor perception of Program goals, and generally appeared to have had a less successful experience with the program as measured by all of the resultant attitudinal variables. This effect was particularly prominent in the

recommendation variable which showed a greater likelihood of a complete program recommendation for each successively increasing level of belief in the sufficiency of the classroom teacher. In general, the stronger the belief of the classroom teachers in their own sufficiency as purveyors of the arts, the more likely they were to recommend the program to other teachers and continue its use in their own classrooms. These findings are all the more interesting in light of the fact that the relationship between perception of the importance of content specialization and the teachers own reported training in the arts was not as high as might be anticipated, failing to reach a correlation of +.2.

As examination of the complex of relationships between the various aspects of present teacher attitude and the other variables of the study had indicated that present attitude was not a simple uni-dimensional trait, it was decided to attempt to find some empirical definitions of "positive attitude" in order to bring together the results of this part of the study. Cannonical analysis was chosen as a likely vehicle for this effort.

While one can make an arbitrary decision about the relative importance of various aspects of teacher attitude, create a single criterion variable, and use regression analysis to find what pre-existing conditions or other concomitant factors allow one to best predict this particular criterion, canonical analysis makes no assumptions about the relative importance of the components of the trait to be studied. Their weights are determined on the basis of what clusters of like behavior

can be predicted with the particular data. In this case four variables were chosen to represent the general area of positive teacher attitude. They were: ascription to the idea that aesthetic education is an important area of study, willingness to make a wholesale recommendation of the Program to other teachers, indication that the teacher had definite personal plans to continue the use of the materials, and a presently positive attitude toward the Aesthetic Education Program as a whole. The other variables used in the study, (with the exception of use of the single package, previously mentioned) were at this point treated as predictors.

This procedure led to the empirical differentiation of three patterns of attitudinal outcome as indicated by three statistically significant canonical variates. The first of these variates, akin to a general factor in factor analysis, showed strong positive weights for all attitudinal measures, but with emphasis on stability of the program in that classroom and a positive recommendation of the program to others. Critical predictors of this condition were teacher reports of high student participation and enjoyment, a liberal classroom atmosphere, and a very strong disavowel of the proposition that the arts should be primarily the responsibility of the specialist.

The second canonical variate (the most predictable combination of variables which is completely unrelated to the first), was highlighed by teacher agreement with the importance of aesthetic education, but a tendency toward indefinite plans to use the program in the future. Predictors of this condition were teacher involvement in the implementation decision, but poorer goal perception and very low student participation.

This might be regarded as disenchantment syndrome stemming from poor initial understanding of program goals. It should be noted here that we can, also with equal validity, reverse all the signs in the canonical equation and say that an external decision locus coupled with higher goal perception and high student participation led to situations where the program might be retained despite a lack of commitment to its importance. This may also tend to indicate that the single largest factor influencing future use of the program aside from philosophic commitment to it lies in student response.

The third canonical variate was characterized by teachers indicating stable program and commitment to aesthetic education's importance but indicating lower attitude otherwise and less willingness to make a complete recommendation of the Program to others. The outstanding predictor of this complex was the use of the program at low grade levels. Our best guess in this regard is that this represents a frustration response on the part of overly ambitious teachers encountering difficulty in adapting the program to the needs of kindergarten and first grade students. The potential danger here will need consideration in future diffusion efforts.

As a final step in the analysis of the 1972-73 questionnaire data, a second set of canonical correlations was attempted which focussed not only on teacher attitude but the broader question of what patterns of success and failure characterized the implementation of AEP materials as a whole. For this analysis, student participation and enjoyment were treated not as factors influencing teacher attitude but as a terminal outcomes in their own right and moved to the other side of the canonical equations. Teacher perception of the importance of aesthetic education, conversely, was treated as an influence rather than a result and entered with the predictor variables.

This procedure led to two significant canonical variates. The first was characterized by a more complete recommendation of the program to others and higher present teacher attitude and student enjoyment. Variables significant as predictors were low income, high initial attitude, a belief in the importance of aesthetic education and use at higher grade levels. This characterization of success lacked great explanatory appeal, however, and again using our perogative of sign reversal, this variate began to take on interest as a basis for some potentially weighty hypotheses. For example: "The program received considerably less support in high income schools where education in the arts was felt to be the job of a specialist teacher who comes in a couple times a week to give the real teacher a chance to plan her lessons in the important subjects." Obviously this is just an overstated version of one of a number of ways that one might speculate about this particular pattern and knowing the sensitivity of canonical analysis to sampling error it can in no way be considered a "finding" of the study. But with 20/ 20 hindsight it is unfortunate that we did not specifically investigate such matters as whether the teacher had lost a free period as a result of trying out the program.

The second significant canonical variate in this analysis, analogous to a bipolar factor, separated "success" as defined by success with students from "success" as defined by a positive attitude on the part of the teacher and high stability of the program. Situations where high student enjoyment and participation were coupled with an unstable program showed a predisposition to low income, high ability, less teacher background in the arts, and, most prominantly, poor goal perception. This leads us to speculate that even in situations

where the goals of the program are poorly perceived--even to the point of using the materials as a means to the traditional outcomes in the arts--children will still enjoy use them. Unfortunately, however, (or fortunately, as the case may be) such programs will probably not endure, eventually falling victim to a fatal combination of materials and teacher working at cross-purposes.

Conclusions

The somewhat unique nature of the Pennsylvania Aesthetic Education Program and the fact that the variables used herein were all based on self-reports clearly limits our ability to suggest overarching conclusions regarding diffusion. We can nevertheless, with appropriate reservations, suggest a few broad notions in this regard.

With respect to the general nature of the diffusion of innovation, it does seem clear that the success of such ventures in never a simple matter; any "innovation" destined for complete success or failure would probably have done so long ago. The multiple dimensions of success and failure approach used here, however, is of considerable practical import because success can indeed take on many forms. It should be remembered that studies based on self-reports will tend to underestimate, if anything, the dimensionality matter because of the well-known defects of attitude measurement (e.g., halo effects, etc.). Attempting to do evaluation of innovation and change while holding such notions as "If they like it they'll continue to use it" is doubly dangerous; not only may their falsity lead to poor planning decisions, but making such assumptions may also cause one to be too late to find cures when the mistake is realized.

Our findings in Pennsylvania seem to support previous authors' contentions that commitment to the philosophical position that underlies change is indeed critical. Those who would innovate by simply prescribing treatment, thinking that conversion of professionals to the underlying

rationale will follow, may be making a potentially fatal mistake. Unless diffusion mechanisms allow for providing potential implementors with the rationale for change as well as the prescriptions for it, change has a greatly diminished chance of enduring.

Our data also make it reasonable to suggest that the use of volunteer implementors in large scale evaluative studies may not be as serious a defect, per se, as it might appear. While there was a tendency for teachers who had taken stronger roles in the implementation decision to show greater satisfaction with the program, our evidence suggests that this effect came about through the instrumentality of their belief in and understanding of the principles underlying it. The effect of the locus of implementation itself appeared to be negligible when these factors were accounted for.

In fairness, it should be pointed out, however, that extremism in the direction of selling one's goals could easily be as ultimately debilitating to change. After the beachheads of innovation have been established, the factors influencing continued success undoubtedly undergo an important shift. Rogers (1962) has pointed out that later adopters of innovation differ substantially from those in the first waves of change. It is thus likely that there exists a ceiling for conversions at the theoretical-philosophical level, and as this ceiling is approached, other factors more closely allied with the materials of change become the critical variables influencing continued expansion. In summary, therefore, diffusion efforts (and thus likewise, evaluation efforts) that lack a balance of treatment in putting forward the products and prescriptions for change and discussing their associated processes and rationales, are clearly shortsighted.

Speaking specifically of the Aesthetic Education Program, our research was unable to find any evidence that claims of de facto elitism will provide a serious barrier in its dissemination. In those few instances where income and ability showed systematic variation with measures of program success, the relationship existed in opposition to the feared direction (e.g., lower income relating to greater student enjoyment), and examination of other variables, again based on beliefs regarding principles underlying the program, provided tenable explanations for the relationships.

Perception of the role of the specialist teacher in the arts will probably continue to be an important aspect of the diffusion of the Aesthetic Education Program approach. Although the differing emphases in arts education implicit in the Aesthetic Education Program and traditional arts programs need not be viewed as in conflict with one another, many will doubtlessly continue to do so. It is of particular importance to realize that the way specialists react to the Program will affect not only their use of it, but possibly the success or failure of the Program in the hands of classroom teachers as well.

As the weight of this study's evidence indicates that teachers may have relatively less understanding of the principles behind aesthetic education yet show considerable satisfaction with it, this gives reason to speculate that some teachers may convert--or possibly subvert--the materials toward their own concept of goals. While one might argue that improper usage is better than no usage at all, this is another matter that the project will have to consider in planning future dissemination efforts.

Methodologically, the study provides evidence that questionnaires designed solely for univariate analysis (such as those reporting only percentages of responses) may result in an inability to generate the important forms of information needed in the evaluation of innovation. Carefully planned questionnaires that allow for further treatment of the data can provide a great deal of insight into the relationship underlying responses.

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APPENDIX A

REPRESENTATIVE CONTINGENCY TABLES

Contingency tables removed due to marginal legibility.

APPENDIX B

CANONICAL ANALYSES

CANONICAL ANALYSIS OF TEACHER ATTITUDES

Variables as labeled with directions of positive orientation in parentheses

Resultants

I	AEPIMPOR	(high importance)
II	FUTUREUS	(committed to future use)
III	RECOMMEN	(complete recommendation of program)
IV	ATTNOW	(high present attitude by self-report)

Predictors

V	INCOME	(high)
VI	ABILITY	(high)
VII	DECISION	(teacher initiated)
VIII	ATTSCALE	(liberal, low-structure classroom)
IX	INITATT	(high initial attitude)
X	SPECRESP	(high belief in the sufficiency of the classroom teacher)
XI	STUPARTI	(high student participation in activities)
XII	IDEALVDI	(high goal perception)
XIII	SPCTRAIN	(more special training in the arts)
XIV	GRADE	(use in grades three and above)
XV	STDENJOY	(high student enjoyment of activities)

Canonical variates with corresponding chi-square values, degrees of freedom, significance levels, and canonical correlations

Canonical variate	-	I	2	3	4
chi-square value	-	108.6	56.3	30.0	9.6
degrees of freedom	-	44	30	18	8
probability less than	-	.005	.005	.05	.50
canonical correlation	-	.57	.43	.38	.27

Coefficients of Corresponding Canonical Variates (decimals ommitted)

Variable I	25	49	68	06
II	66	-78	43	12
III	61	28	-39	-72
IV	36	26	-44	68
V	-15	-08	31	-31
VI	-13	-09	-25	-03
VII	08	37	23	-05
VIII	31	15	-29	-02
IX	39	07	13	50
X	52	17	16	-38
XI	40	-78	12	-18
XII	26	-23	08	05
XIII	21	-11	31	29
XIV	05	09	-56	-01
XV	69	22	-10	05

CANONICAL ANALYSIS OF "PROGRAM SUCCESS"

Variables as labeled (orientation same as in preceeding analysis)

Resultants

I	STDENJOY
II	STUPARTI
III	FUTUREUS
IV	RECOMMEN
V	ATTNOW

Predictors

VI	INCOME
VII	ABILITY
VIII	DECISION
IX	ATTSCALE
X	INITATT
XI	SPECRESP
XII	AEPIMPOR
XIII	IDEALVDI
XIV	SPCTRAIN
XV	GRADE

Canonical variates with corresponding chi-square values, degrees of freedom, significance level, and canonical correlations

Canonical variate -	1	2	3	4	5
Chi-square -	99.8	55.2	26.8	11.8	4.7
degrees of freedom -	50	36	24	14	6
probability less than -	.005	.005	.50	.90	.90
canonical correlation -	.54	.44	.33	.23	.19

Coefficients of Corresponding Canonical Variates (decimals ommitted)

Variable I	33	50	51	20	49
II	05	55	-79	02	-23
III	-19	-60	23	-13	71
IV	76	04	16	-68	-36
V	52	-29	-21	69	-26
VI	-71	-38	-29	08	-51
VII	30	30	08	16	39
VIII	-07	01	12	-05	-37
IX	18	01	-30	-14	09
X	50	-15	-23	55	06
XI	37	05	-33	-60	25
XII	61	-17	33	07	-20
XIII	-22	-67	45	-12	-08
XIV	-29	-37	-30	03	09
XV	53	22	-14	16	-27