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ABSTRACT

This study attempts to examine and document the implementation pattern of Individually Guided Education (IGE) across 30 Wisconsin school districts operating IGE programs in their schools. Using these results, the data were then analyzed to determine which of the seven IGE components examined, contributed most to a favorable overall or Total IGE Implementation Score. The seven components are: organizational arrangement, instructional programming, materials, measurement and evaluation, home school relations, facilitative environments, and research and development. The results indicated that the pattern of IGE implementation across the districts participating in the study is generally adequate or approximately 50 percent along the way to an ideal implementation of the IGE system. Only two of the IGE Components, Home School Relations (35 percent implementation) and Research and Development (33 percent implementation) were areas where improvement and modification can be justified now. The remaining analyses, which consisted of correlational techniques, suggested that districts having a generally favorable Total IGE Implementation Score received favorable ratings on the implementation of the MUS-E Organization, Instructional Programming, and the Measurement and Evaluation Components. At this point in time it appears that Home School Relations, Materials, and Research and Development Components are less a part of the implementation scene of IGE. (Author/DEP)

A Description of the Implementation of Individually Guided Education in Thirty Wisconsin School Districts

by

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INTRODUCTION

During the 1974-75 school year, the Bureau of Planning and Evaluation of the Wisconsin Department of Public Instruction conducted an implementation evaluation of a local school district Individually Guided Education (IGE) program.[1] A by-product of this evaluation was the development of the IGE Implementation Survey, a systematic self-rating device which was designed to assess and document the implementation status of an operating IGE program within and across the seven IGE Components of MUS-E Organizational Arrangement, Instructional Programming, Materials, Measurement and Evaluation, Home School Relations, Facilitative Environments and Research and Development.[2]

Rating devices such as this survey have become a popular and practical means of collecting information within the context of evaluation studies. To date however, much of the research literature on ratings and studies dealing with rating instruments comes from the area of student ratings of teacher effectiveness in the public schools and universities. Typically these ratings were used as a measure to improve instruction. One of the major problems associated with such ratings is that the items upon which teacher effectiveness is rated are often too general or "high inference" in nature, as opposed to items of "low inference" which are specific, and relatively objective.[3] It follows then that high inference items do not lend themselves easily to making improvements in instruction, whereas low inference items can facilitate improvement as they mirror defined teacher behaviors.

Generalizing then from the studies on student ratings of teacher effectiveness to ratings of program implementation by professionals involved in a program like IGE, one can hypothesize that the results to low inference items tailored to specific program characteristics can be used to improve or at least to point out areas of program operation where improvement or modification is warranted.

Using the IGE Implementation Survey, this study attempted to:

a) determine the implementation status of selected IGE programs in the state of Wisconsin;

b) correlate the low inference-based IGE Component Scores with the cumulative survey ratings called Total Implementation of IGE; and

c) identify the individual IGE Component Scores which were good predictors of Total IGE Implementation.

METHOD

The Instrument

The IGE Implementation Survey which consists of seventy-one (71) process objective statements about IGE was used. The survey is designed to collect teachers', and other professionals' ratings of the degree to which an IGE program in operation represents the IGE model. It yields implementation scores on each of the seven IGE Components and a cumulative Total Implementation Score.

The number of process objective statements associated with each IGE Component on the survey is as follows: MUS-E Organizational Arrangements (17 items); Instructional Programming (11 items); Materials (7 items); Measurement and Evaluation (15 items); Home School Relations (8 items); Facilitative Environments (10 items); and Research and Development (3 items). The Total Implementation Score of the IGE system then is based on the 71 items across the system. For purposes of this study, the IGE Component Scores and the Total Implementation Score were analyzed.

The Data

The data for this study consisted of the results obtained on the IGE Implementation Survey for thirty (30) Wisconsin school districts who volunteered to participate in the study. The survey was administered during May, 1975 and was completed by 741 teacher, administrative and some paraprofessional personnel across the 30 districts. The survey requires each person to respond to each process objective statement to indicate the extent to which the particular statement is implemented in their IGE program. A four point response continuum (0 = no implementation to 4 = ideal implementation) was used to gather the data. Each potential response was operationally defined so that the answers would be more focused.

The Limitations

Several limitations in this study need to be pointed out. The districts which participated in the study differed on several variables, among these were: duration of IGE operation, subject matter focus, and number and type of individuals responding. In addition, though the administration guidelines for this self-completed survey suggested group administration formats, it appeared that some districts used individualized formats.

Also, an important limitation is that in using the Total Implementation Score as a criterion variable, one actually inflates the correlation index between the predictor (each IGE Component Score) and the criterion variable (Total IGE Implementation) since the Total IGE Implementation Score is a cumulative index and therefore not the result of independent ratings per se.

Statistical Analysis

Two types of analysis were applied to the data. First, mean scores (Average Percent of Implementation), ranks, and standard deviations were calculated for each IGE Component and the Total Implementation Score.

Secondly, to determine the contribution of each component score to the variation of the Total Implementation Score two correlational techniques were used: a) mean ratings on IGE Component Scores one through seven were correlated with the Total Implementation Score. The components which correlated highly with the Total Implementation Score were assumed to make strong contributions to overall IGE implementation; and b) partial correlation coefficients were calculated between each of the IGE Component Scores and the Total Implementation Score to examine the relationship between each component score to the Total IGE Implementation Score when the effects of the other components are statistically controlled. The components which have high partial correlations are those that make strong independent contributions to variation in overall IGE implementation and consequently are considered important IGE characteristics.

RESULTS

The first analysis consisted of computing mean scores or an average percent of implementation for each of the seven components and the total score. These are summarized in Table 1, along with the standard deviations and ranks associated with each mean. Examination of the results indicate that Components 1, 2, 3, 4, and 6 approximate an adequate level of implementation according to the suggested interpretation for each stage of implementation. The Total Implementation Score (46%) also represents an adequate stage of implementation. The Home School Relations Component (35%) and the Research and Development Component (33%) are two areas however, where improvement in implementation can be justified.

The second analysis consisted of two correlational exercises which are presented in Table 2. Pearson-Product moment correlations were computed between the mean scores for components one through seven and the Total Implementation Score. These correlation data show that the IGE characteristics which made the strongest contribution to Total IGE Implementation were Measurement and Evaluation (.92), MUS-E (.90), and Instructional Programming (.90) Thus, it appears that the IGE programs which were perceived as high in overall implementation were also rated favorably on such characteristics as measurement and evaluation, instructional programming and MUS-E organizational framework. The IGE Components which contributed least to overall implementation were Research and Development, Home School Relations and Materials.

The next phase of the correlational analysis consisted of multiple regression analysis and the calculation of the partial correlations for each component. IGE Components 1 - 7 were used as the predictor variables with the Total Implementation Score the criterion variable. The partial correlations for each of the predictor variables with the linear effects of every other predictor variable partialled out are also shown in Table 2. This partial correlation analysis allows us to focus on the independent contribution of each IGE Component to the overall IGE implementation pattern.

In examining the partial correlations, we can observe a slight reordering of the predictor variables (Components 1 - 7) in terms of their contribution to total implementation. Based on the IGE Components which showed a strong independent relationship to total IGE implementation, the generally well-

implemented IGE program was also perceived favorably in the implementation of the MUS-E Organizational Arrangements, Instructional Programming and Measurement and Evaluation Components.

When used together, IGE Components 1 - 7 accounted for 98 percent of the variation of total implementation, with the multiple correlation coefficient between the weighted sum of the predictors and the criterion variable at .99. These data suggest that the domain of ratings of IGE implementation was covered rather completely by the analysis.

TABLE 1

Descriptive Statistics Across the Thirty IGE Projects Which Completed the IGE Implementation Survey During the Spring, 1975.

N = 741

IGE COMPONENT	AVERAGE PERCENT OF IMPLEMENTATION*	S.D.	RANK OF IMPLEMENTATION
1. MUS-E Organizational Arrangements	45	18.8	4
2. Instructional Programming	50	20.6	2.5
3. Materials	54	21.2	1
4. Measurement and Evaluation	50	21.8	2.5
5. Home School Relations	35	18.9	6
6. Facilitative Environments	43	21.5	5
7. Research and Development	33	24.5	7
TOTAL Implementation	46	17.8	

*Interpretation

0% = no implementation
25% = some implementation
50% = adequate implementation
75% = approaching ideal implementation
100% = ideal implementation

TABLE 2

The Pearson Correlations, Partial Correlations and Ranks Relating IGE Component One Through Component Seven to the Total Implementation Score From the IGE Implementation Survey Administered to Thirty Wisconsin Districts Using IGE, Spring 1975.

	PEARSON r WITH TOTAL IMPLEMENTATION		PARTIAL CORRELATION* WITH TOTAL IMPLEMENTATION CONTROLLING ALL OTHER COMPONENTS	
COMPONENT (Predictor Variable)	r	rank	rp*	rank
1. MUS-E Organizational Arrangements	.90	2.5	.78	1
2. Instructional Programming	.90	2.5	.56	2
3. Materials	.79	5	.46	5.5
4. Measurement and Evaluation	.92	1	.55	3
5. Home School Relations	.75	6	.46	5.5
6. Facilitative Environments	.85	4	.54	4
7. Research & Development	.70	7	.24	7
TOTAL Implementation (Criterion Variable)				

*The partial correlation (rp) for each component represents the correlation between each component and the Total Implementation Score when the effects of the other components are statistically controlled.

CONCLUSIONS

This study attempted to examine and document the implementation pattern of IGE across thirty Wisconsin school districts operating IGE programs in their schools. Using these results, the data were then analyzed to determine which of the seven IGE Components examined, contributed most to a favorable overall or Total IGE Implementation Score.

The results indicated that the pattern of IGE implementation across the districts participating in the study is generally adequate or approximately 50 percent along the way to an ideal implementation of the IGE system. Only two of the IGE Components, Home School Relations (35 percent implementation) and Research and Development (33 percent implementation) were areas where improvement and modification can be justified now.

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IMPLICATIONS

The present study did not set out to test a set of a priori hypotheses but to identify and explore the nature of IGE implementation in a selected sample of schools in Wisconsin. Perhaps the most salient question to be dealt with in future research on IGE implementation might focus on the relationship between degree of implementation and program effect(s), using implementation as one of the independent variables. It would be useful to know, for example, if variation in implementation in one or more of the IGE Components produces a variation in possible program effects, such as achievement, cost, student attitude, teacher morale, administrator role performance, etc. Information relating certain inputs (implementation) to probable effects would certainly be helpful in determining where the greatest payoff among competing program development costs and alternatives may be.

The study also raises questions of a more immediate nature which apply to the 30 districts from which data were obtained and to other districts which have recently inaugurated IGE as the primary instructional mode. Are they evaluating their IGE program? If so, how are they evaluating their program? Are they evaluating the outcome variables using summative evaluation designs such as pre- and post-testing, or are they using formative evaluations to facilitate the full development of the IGE programs?

There have been some concerns raised in the literature which describes the pitfalls associated with the use of summative or outcome evaluation procedures alone in evaluating innovations like IGE.[4] It might be best for these schools to focus their evaluation strategies, first to areas of program operation to ensure that the program in action meets some predetermined criteria, and then, having some certainty that the program exists according to expectations, employ summative evaluation to assess the degree to which the program met its outcome objectives.

NOTES

1. Ashmore, William H. "Summary Report: An Assessment of the Implementation of the Wisconsin Dells, Wisconsin, Individually Guided Education Program." Wisconsin Department of Public Instruction. Madison, Wisconsin, January, 1975.

2. Ashmore, William H. "Toward An Evaluation of Individually Guided Education." Wisconsin Department of Public Instruction. Information Series, Vol. 4, No. 4. Madison, Wisconsin, May, 1975.

3. Rosenshine, B. "Evaluation of Instruction." Review of Educational Research. 1970, Vol. 40, pp 279-300.

4. Charters, W. W. and Jones, John E. "On the Risk of Appraising Non-Events in Program Evaluation." Educational Researcher. November, 1973, Vol. 1, pp 5-7.