The study involved an attempt to promote use of evaluation data in compensatory education through a technical assistance effort at the state education agencies (SEA) level. It included a secondary analysis of Hawaiian Title I longitudinal data and dissemination of findings through a series of consultations with evaluation and program personnel at the SEA and local education agencies (LEA) levels. Impetus for the study came from increased awareness of information needs on the part of project staff for program design and improvement purposes. The study suggests several potent variables for predicting Title I student achievement. These variables include school type, school/project enrollment, pretest achievement-status, per pupil cost, absenteeism, project setting and instructional approach. Outcomes of the study suggest that face-to-face technical assistance is not only a viable but perhaps one of the most effective ways of promoting use of evaluations.

(Author/PN)
Promoting Evaluation Use Through Technical Assistance: An SEA Example

Kim Onn Yap
Northwest Regional Educational Laboratory


Printed in U.S.A.
Promoting Evaluation Use Through Technical Assistance: An SEA Example

Abstract

The study involved an attempt to promote use of evaluation data in compensatory education through a technical assistance effort at the SEA level. It included a secondary analysis of longitudinal data and dissemination of findings through a series of consultations with evaluation and program personnel at the SEA and LEA levels. Impetus for the study came from increased awareness of information needs on the part of project staff for program design and improvement purposes. Outcomes of the study suggest that face-to-face technical assistance is not only a viable but perhaps one of the most effective ways of promoting use of evaluations.
Promoting Evaluation Use Through
Technical Assistance: An SEA Example

INTRODUCTION

Evaluation use is often defined as using information gathered in an evaluation as the basis for decision making. Under this definition little evidence can be found to support the assertion that evaluation information is being used by decision makers (Wise, 1978; Thompson and King, 1981). Some researchers have made a distinction between use of evaluation which determines go/no go decisions from use which influences a policy maker’s thinking about a program without putting evaluation information to a specific, documented use (see Rich, 1977).

A more relaxed, and perhaps more realistic, definition of evaluation use is offered by Alkin et al. (1979). According to these authors, use occurs when evaluation provides people with information that influences them in making a decision about the future content, practice, appearance, or existence of the program.

The forces which lead to evaluation use are often complex and fluid (Patton, 1978; Alkin, 1979). Hansen (1981) reviewed literature on evaluation use and identified four factors influencing use: technical/methodological, personal/role related, communication related, and political/organizational. In a survey of SEA personnel in nine western states he found a general perception of the technical/methodological factor as the major obstacle to evaluation use. A traditional tendency
to view evaluation from a restrictive, summative perspective might have contributed to such perceptions. The author suggested that evaluation use be viewed as a continuous variable to tease out relationships among evaluation consumers, levels of use, and emphasis for technical assistance. Degrees of evaluation use included: program awareness or public relations, influence on or consideration in decision making, and major basis for decision making.

In a survey of 15 Title I districts in 6 states, David (1981) found that the primary local uses of evaluations were to meet legal requirements, to provide feedback, and to provide gross indicators of program effectiveness. Title I evaluations did not seem to serve, as primary purposes, either as a basis on which to judge the program or as a guide to program improvement. Reasons for the minimal use of evaluations in judging program effectiveness reflected preferences for measures of achievement other than standardized tests, a fear of misleading comparisons, and the view that programs have multiple goals. The author also found Title I programs to be quite stable, thus limiting the potential for changes to occur, regardless of whether such changes are based on evaluation information.

David (1981) suggested that merely improving the technical quality of measures would not by itself affect the level of evaluation use. To increase use one must address the underlying reasons for lack of use, including individual attitudes and beliefs about the program and evaluation. Among other things, communication and cooperation between program staff and evaluation staff needs to be strengthened. Results
should be presented in person if they are to be clearly understood and hence used by staff. Local district staff need assistance in incorporating evaluation information into planning and decision making. In much the same vein, vanderPloeg (1982) described incremental improvement, feedback and formative evaluation as the life-blood of local evaluation. Evaluation use increases when emphasis is placed on personal contact and direct involvement of the evaluation staff with project administrators (vanderPloeg, 1982; Holley, 1980).

In a recent national survey, Alkin et al. (1982) concluded that both the Title I Evaluation and Reporting System (TIERS) data and other types of Title I evaluation data were used at all decision levels by state education agencies (SEAs) and local education agencies (LEAs). In their report to the U.S. Department of Education, the researchers maintained that the Title I evaluation system did, indeed, have utility. They uncovered strong evidence that evaluation data were seen as an information source in the daily life cycle of Title I projects. Evaluation data contributed in incremental ways to major program decisions. At the SEA level, evaluation data were used to monitor LEA compliance, to recognize both problem areas and exemplary programs and to influence administrative and curricular actions. LEAs typically used Title I evaluation data to change attitudes and opinions toward Title I projects, to recognize situations requiring attention and to contribute to decisions on administrative and curricular actions.

The researchers found that different kinds of evaluation data had relative utility at the various organizational levels. School boards, district advisory committees and external agencies relied on summative
data, such as TIERS data, more extensively than other evaluation data. At the district administrative level, TIERS data were mixed about equally with other Title I evaluation data developed by the district. At the building level, principals, coordinators and the like relied slightly more on TIERS than on other data. At the classroom level, TIERS data were less often used. Instead, data more closely related to the instructional programs were preferred.

Analysis of case studies showed that evaluation use was affected by several contextual variables, including:

Evaluator credibility. The reputation and credibility of the evaluator is an important determinant of use. While evaluators may achieve credibility in differing ways they must be perceived as competent and trustworthy.

Evaluator commitment to use. Credibility, while important, is not enough to insure evaluation use. The evaluator must also have a commitment to seeing that evaluation results are used by decision makers.

Interest in evaluation by decision makers and the community. Evaluation data are used when they are tailored to the needs and interests of the local school community. Use occurs when evaluators draw relevant information from TIERS data and when they conduct special evaluations to meet local requests.

Local focus of evaluation. Use increases when evaluations are specifically designed to meet local needs. Success of use is attributable to timely response and sensitivity to local concerns.

Effective presentation of results. Graphic, narrative and
Nontecnical modes of presentation increase the utilization of evaluation data to local decision makers.

Assistance in developing procedures for the use of evaluation data. Evaluation use increases when decision makers are assisted in understanding how they might use the evaluation data. Successful evaluators typically provide detailed, step-by-step procedures to potential users.

Alkin et al. (1982) suggested several recommendations for improving evaluation utility as Title I became Chapter I in the new law. They believed that Chapter I evaluation utility could be enhanced by continued technical assistance in reformatting "TIERS-like" results to meet LEA information needs. Also, SEA and LEA evaluation units should be encouraged to design a variety of local decision-focused evaluation strategies. In particular, locally designed evaluation procedures might provide information on the impact and costs of various materials and processes within projects.

The researchers pointed out that many local and state agency personnel required guidance in developing procedures to follow when making decisions. It was not that administrators did not want to use relevant information. They typically did not know how to incorporate the information into their decision processes. Moreover, evaluators must become aware of the vital role their personal style played in evaluation utilization. Training procedures for evaluators might emphasize the evaluator's role and the importance of interpersonal skills.
OBJECTIVE

The primary objective of the present study was to promote evaluation use by the Hawaii Department of Education for program planning and improvement purposes. Hawaii has systematically gathered Title I evaluation data since the inception of evaluation requirements in the Title I legislation more than ten years ago. Little, however, was done to integrate the data either on a longitudinal or cross sectional basis to address questions relating to statewide program activities. It was a widely shared perception within the DOE that evaluation data gathered during the past several years had not been put to maximum use. There was a need to find out what types of data had been collected and how such data could be used to address substantive issues relating to Hawaii's overall Title I effort.

The study was designed to address various substantive questions on the basis of a secondary analysis of the evaluation data over several years. It was hoped that the project would serve as a prototype model for evaluation use at the SEA level in a cost effective manner. Such secondary analyses could be made part of regular TAC services if their value to SEA personnel was fully demonstrated in the present project.

The primary audience of the project was to be the Hawaii SEA personnel (e.g., evaluation and compensatory education staff). It became clear, however, the district coordinators and Title I school administrators as well as the teaching staff could also benefit from the project. Plans were subsequently made to disseminate the results to a much larger audience than the state office staff.
PROCEDURE

The project was carried out by the Technical Assistance Center (TAC) in cooperation with the SEA evaluation and compensatory education staff. The involvement of compensatory education staff was particularly crucial with respect to formulating and prioritizing questions to be addressed. The scope of the secondary analysis depended in a large measure on feedback provided by the compensatory education staff.

The study was conceptualized in early 1981 when data use became an area of interest to both SEA and LEA staff in Hawaii. The SEA evaluation staff perceived a need to build a data base by pooling data presented in evaluation reports for past school years and to use the data base to address statewide issues relating to Title I. Several consultations were held during the early months of 1981 which resulted in the delineation of the following design elements:

1. Data sources would be limited to evaluation reports prepared by the external evaluator and related documents (e.g., state directories and welfare reports).
2. The study would cover data for the 1978-81 school years.
3. Schools would be used as the unit of analysis. Data were to be aggregated across grades for each school. (This decision was later relaxed a bit to accommodate grade-by-grade analysis of achievement data.)

A preliminary list of variables of interest was compiled by SEA evaluation staff on the basis of a review of several school-level evaluation reports. The list was reviewed by TAC staff and subsequently
served as a basis for the development of a coding format. Both evaluation and compensatory education staff were involved in formulating and prioritizing research questions for the study. Following several discussions, it was decided that while all variables identified were of interest to the staff, the study would focus on questions relating to the effects of various instructional approaches and project settings on student achievement.

Data coding was accomplished in three phases. Preliminary coding of projects and school information was conducted by TAC interns at the Laboratory in Portland. These data pertained essentially to information obtainable from the district-level reports. Such information items included school code, school enrollment, school type, grade level covered by school, welfare status of attendance areas and overall student achievement.

The second phase of data coding was conducted on site in Hawaii with the aid of three graduate students hired by the compensatory education section. The coding covered some 300 plus school-level evaluation reports and included information obtainable only from the school-level reports. Such information included student grouping, diagnostic testing, inservice training, project setting and instructional approach. With respect to the coding of instructional approaches a list of basal materials used in Title I projects was prepared by the compensatory education staff. The list was reviewed by language arts specialists in the Office of Instructional Services. Based on this review, two primary categories of instructional materials/approaches were established: (a) materials which were incorporated in a prescribed instructional
system and (b) materials which were not part of a prescribed instructional system. Examples under the first category included Anne Adams, the Chicago Mastery Program and the Hawaii English Program. Examples under the second category were SRA's word attack skills kit, McGraw Hill's Webster skill cards and the Reader's Digest reading skill-builder.

Two major categories of instructional settings were identified: (a) regular classroom and (b) pull-out. In the regular classroom setting, certified teachers and/or aides worked with Title I students in the regular classroom, providing tutoring and other instructional activities. In the pull-out setting, project students were pulled out from the classroom to receive Title I instruction in a separate room or learning center, usually in small groups. The students were sent back to the regular classroom after the Title I instruction.

The third phase of data coding included grade-by-grade achievement data within each project. This was done following considerable discussion on comparability of NCE gains across grades, resource constraints and the merits of having grade-by-grade analysis of achievement data. The coding was accomplished by student helpers in the evaluation section under the supervision of the SEA evaluation staff.

As would be expected, a number of problems were encountered in coding information from the evaluation reports, including:

1. **Missing data.** Information was not provided in the district or school-level reports. For example, there were no data on staff FTE and absenteeism for the 1978-79 school-year.
2. **Ambiguous narratives.** Some project narratives in the school-level reports were difficult to interpret. For example, in some cases membership of parent advisory councils was not clearly described.

3. **Lack of discreteness.** Many projects used composite project settings and student groupings. For instance, some narratives mentioned use of individual, small group and large group instruction with various grouping configurations.

Most problems were resolved on the basis of the data coders' best judgment. In other cases, the data sheets were left blank.

Completed data sheets were mailed to TAC staff at the Laboratory in Portland. These were keypunched and quality control measures were taken to ensure accuracy of coding and validity of the coded data. A few cases were discarded because of excessive missing data and some inaccuracies in coding were corrected. Data analyses were then performed on the "clean" data.

Initially, means and standard deviations were computed for all variables of interest. These calculations were conducted separately for each of the three years included in the study. Descriptive statistics were obtained on the selected variables by subject area (i.e., reading versus mathematics) and by school type (i.e., public versus private). Due to the relatively small number of private schools, subsequent analyses were confined to public school samples.

Correlational analyses were then performed on samples of public schools, again separately for each of the three school years. These analyses were conducted to identify factors which were related to student achievement.
A third set of analyses consisted of analyses of covariance (ANCOVAs) of project NCE gains using per pupil cost and pretest NCE as covariates, the latter variables having been shown to be related to student achievement. The ANCOVAs were performed to assess the effects of project settings and instructional approaches commonly used in Title I projects in Hawaii. Project settings included (a) regular classroom and (b) pull-out and (c) combinations. Again, these analyses were performed separately for each of the three school years. The ANCOVAs were first performed on NCE gains for projects as a whole—grade level gains having been aggregated across grades. Similar analyses were then conducted separately for each grade.

RESULTS

Due to space limitations, only the major findings and conclusions will be presented here. The study suggests several potent variables for predicting Title I student achievement. These variables include school type, school/project enrollment, pretest achievement status, per pupil cost, absenteeism, project setting and instructional approach. Results of the study support the following conclusions:

1. Project impact as measured by NCE gains over the three school years covered by the study has remained quite stable ranging from 7 NCEs to 8 NCEs for the reading projects and hovering around 11 NCEs for the math projects.

2. Students in the lower grade levels can be expected to make greater NCE gains than students in higher grade levels. The difference is probably a result of the developmental process rather than a consequence of differential program effectiveness.
3. Size of project and/or school enrollment is inversely related to achievement gains. This suggests that small projects located in small schools seem more conducive to learning basic skills than large projects located in large schools.

4. Students who scored lower on the pretest tend to make greater achievement gains than their higher scoring counterparts. This, again, is probably due to developmental factors rather than program effectiveness.

5. Per pupil cost is positively related to achievement gains. Undoubtedly, this occurs because per pupil cost is a surrogate for program elements (e.g., more experienced teaching staff, better facilities and materials) which tend to produce high achievement.

6. There is some evidence that absenteeism is inversely related to achievement gains. This finding is generally in congruence with results of recent time-on-task studies.

7. In terms of achievement gain, students who received Title I instruction in the pull-out setting are likely to perform as well as, if not better than, their counterparts in other settings. This suggests that despite its apparent drawbacks (e.g., loss of regular classroom instruction, transition time) the pull-out setting remains a viable option for providing services to Title I youngsters.

8. Students who received Title I instruction under a combination of instructional approaches (e.g., a prescribed system supplemented by miscellaneous materials) are likely to make as much, if not
greater, achievement gains as their counterparts under other single approaches. This perhaps points to the validity of allowing the teaching staff flexibility in using materials in ways most suitable for individual students within a project.

The primary areas of interest in the present study consist of such manipulable program features as project setting and instructional approach. Contrary to negative perceptions expressed by some researchers (Harnischfeger, 1980), the pull-out setting was shown to be superior to other project settings (e.g., regular classroom) examined in the study. Even when grade level effects were taken into account, the overall trend still appeared to favor the pull-out setting. The trend was less clear with respect to the effects of different instructional approaches. In a majority of instances, however, the combination approach was shown to have worked as well as, if not better than, other approaches.

**DISSEMINATION**

Findings of the secondary analysis were presented to TAC clients in narrative, tabular and graphical formats. (See Appendix A for an example.) They were first reported to the SEA evaluation and compensatory education staff. Input was obtained from the SEA staff with respect to accuracy and meaningfulness of the results. Minor revisions were subsequently made in the final report for wider dissemination. Compensatory education staff in each LEA were given a copy of the written report as well as an oral briefing on the findings. In several districts, the results were disseminated in an abbreviated form (see Appendix A) to Chapter I teachers and school administrators.
Naturally, the effects of this technical assistance effort on decision-making has yet to be fully demonstrated. However, based on Hansen's (1981) delineation of levels of use, the awareness/public relations function of evaluation appeared to have been achieved. Moreover, based on anecdotal data, the findings have had some influence on the thinking of district administrators in at least a couple of cases where the district administration was on the verge of switching from pull-out to the regular classroom setting for Chapter I projects. Reports from SEA compensatory education staff who monitor the district Chapter I projects further confirmed that district personnel were taking the findings of the study into consideration in planning Chapter I projects. At the SEA level, plans are being developed to expand the data base on an on-going basis, adding annual evaluation information to the data base and conducting the secondary analysis on a yearly basis.

SUMMARY AND CONCLUSIONS

The study involved an attempt to promote use of evaluation data in compensatory education through a technical assistance effort at the SEA level. It included a secondary analysis of longitudinal data and dissemination of findings through a series of consultations with evaluation and program personnel at the SEA and LEA levels. Impetus for the study came from increased awareness of information needs on the part of project staff for program design and improvement purposes. The research strategy was similar to what Klausmeier (1982) described as improvement-oriented research. First, it was directed toward educational improvement through evaluation use. Second, it was planned and carried
out cooperatively with users of the results. The study also bore resemblance to what Schwab (1977) labeled as practical research in that the objective of the research was to aid practitioners in making informed decisions concerning means of improving the education of students enrolled in Chapter I projects.

Findings of the study, along with their implications for program design and improvement, were disseminated through a series of consultations with SEA and LEA staff in the state. Given the successful working relationships between TAC and its clients, the study exemplified the effects of contextual variables affecting evaluation use as described by Alkin et al. (1982). Of the six contextual variables, commitment to utilization and the development of procedures for evaluation use are integral parts of the TAC mission. After years of providing technical assistance to SEA and LEA personnel, TAC staff have established good rapport and working relationships with clients and achieved credibility as givers of sound advice. Interest in evaluation by decision makers and local focus of evaluation were quite evident in the present study.

Finally, results were presented in narrative, tabular and graphical forms to achieve maximum impact on potential users of information. Undoubtedly, these conditions of evaluation use were enhanced by the face-to-face contact between TAC staff and clients. Once the conditions conducive to use were established, the stage was set for TAC staff and clients to work in concert to promote use of evaluation information which would ultimately benefit youngsters enrolled in Chapter I projects.
REFERENCES


The Hawaii State Department of Education recently completed a secondary analysis of Chapter 1 data gathered over a three-year period. Growing out of an increased awareness of information needs for making program decisions at the school level, the study addressed several questions, including:

1. What are the effects of different project settings on student achievement?

2. What are the effects of different instructional approaches on student achievement?

Data were obtained from evaluation reports for some 300 Chapter 1 projects implemented during the 1978-81 school years in the seven districts. The major project settings consisted of pull-out, regular classroom and some combination of the two. Instructional approaches included prescribed systems, non-prescribed systems and some combination of the two.

Results of the analysis suggest that students receiving Chapter 1 instruction in the pull-out setting are likely to perform as well as, if not better than, their counterparts in other settings. Students receiving instruction under a combination of approaches (e.g., a prescribed system supplemented by miscellaneous materials) are likely to achieve as well as, if not better than, their counterparts under other approaches.

The results are displayed graphically in the figures below.
NCE Gain for Reading Projects
By Project Setting

NCE GAIN

1978-79 1979-80 1980-81

regular classroom
pull-out
combination

23
NCE Gain for Reading Projects
By Instructional Approach

- Instructional materials only
- Instructional systems
- Combination