ED 194 557   TM 800 686

AUTHOR   Drezek, Stan: Roecks, Alan L.
TITLE   Intermediate Educational Service Agency Evaluation:
                Levels of Program Objectives and Associated
                Evaluation Methods.
PUB DATE   Sep 80
NOTE   37p.: Paper presented at the Annual Conference of the
                Evaluation Network (6th, Memphis, TN, September
                29-October 1, 1980).

EDRS PRICE   MF01/PC02 Plus Postage.
DESCRIPTORS   *Educational Assessment: Education Service Centers;
                Elementary Secondary Education: *Evaluation Methods:
                Formative Evaluation: Instruction; Intermediate
                Administrative Units: Measurement Objectives:
                *Models: *Program Development: *Program Evaluation:
                Regional Programs: School Districts: Summative
                Evaluation
IDENTIFIERS   *Texas (South)

ABSTRACT
                How the "Levels of Program Objectives Model" (LPOM)
can be used to carry out objectives-based evaluation is explained.
The LPOM explains the relationship between an instructional program
of a district and various programs supporting the district program.
The evolution of an objective-based evaluation approach within the
context of an intermediate educational service agency serving 50
school districts in South Central Texas is summarized. A model for
conceptualizing program objectives into hierarchical levels and
focusing evaluation on priority objectives is described. Evaluation
methods feasible for objectives at each level of the model are listed
and divided into suggested and other approaches. Example priority
objectives, evaluation questions, and resulting evaluation products
taken from ongoing evaluations illustrate the use of the levels of
program objectives model and its associated methods. The model has
been used to successfully classify over 800 objectives, and has been
useful in breaking down common communication barriers in objectives
clarification. In addition, the model has the potential to be an
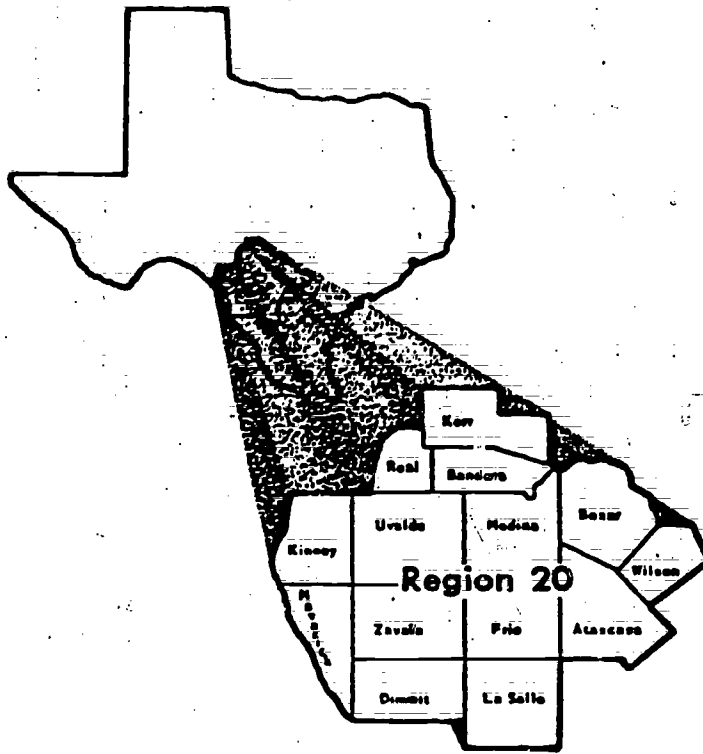effective training guide in an objectives-based setting.
(Author/PL)

Region 20

Ker
Real
Bandera
Uvalde
Medina
Bexar
Kinney
Wilson
Zavala
Frio
Atascosa
Dimmit
La Salle

INTERMEDIATE EDUCATIONAL SERVICE AGENCY EVALUATION:

LEVELS OF PROGRAM OBJECTIVES AND ASSOCIATED EVALUATION METHODS

Stan Drezek
Alan Roecks

Paper presented at the Sixth Annual Conference
Evaluation Network; Memphis, Tennessee; September 29 - October 1, 1980

2

INTERMEDIATE EDUCATICNAL SERVICE AGENCY EVALUATION:

· LEVELS OF PROGRAM OBJECTIVES AND ASSOCIATED EVALUATION METHODS

Stan Drezek & Alan L. Roecks

Education Service Center, Region 20

San Antonio, Texas

ABSTRACT[1]

A brief summary of the evolution of an objectives-based evaluation approach within the context of an intermediate educational service agency is presented. A model for conceptualizing program objectives into hier- archical levels and focusing evaluation on priority objectives is described. Evaluation methods feasible for objectives at each level of the model are listed and divided into suggested and other approaches. Example priority objectives, evaluation questions, and resulting evaluation products taken from ongoing evaluations illustrate the use of the levels of program objectives model and its associated methods.

INTERMEDIATE EDUCATIONAL SERVICE AGENCY EVALUATION:

LEVELS OF PROGRAM OBJECTIVES AND ASSOCIATED EVALUATION METHODS

The purpose of this paper is to explain how the "Levels of Program Objectives Model" can be used to carry out objectives-based evaluation. The context is an intermediate educational service agency. The intended audience is practicing program evaluators.

INTRODUCTION

Education Service Center, Region 20 is an intermediate education agency serving 50 school districts in a 14-county region of South Central Texas. Region 20 is located in the San Antonio metropolitan area. Just over three years ago Region 20 established an evaluation office, funding it as a direct cost written into most grants and applications and using a time accounting system to document evaluation work performed for each separate funding source. The office annually evaluates over 50 programs offered to school districts.

One of the first tasks in establishing the evaluation office was to select an evaluation approach feasible in an intermediate agency environment. In Texas these agencies are highly dependent upon external funding. Most of the external funding sources require program objectives and an associated evaluation plan. Therefore, an objectives-based model was chosen (Stufflebeam & Webster, 1980). Much of the first year was spent working with program staff clarifying program objectives. In fact, a rather elaborate scheme to focus and document the review of objectives was developed. This approach resulted in the Program Objectives Checklist (see next page). The concepts of clarity, significance, and measurability were useful in reviewing objectives. However, to our disappointment the elaborate instrument proved unworkable.

PROGRAM OBJECTIVES CHECKLIST

PURPOSE: To document Evaluation Services' suggestions on clarity, significance, and measurability. The degree statement is the responsibility of Evaluation Services. The relationship of objectives to ESC-20 goals and regional needs is the responsibility of Planning & Development.

Program	Reviewed by	Date

Objective No._____ Level _____

1. Clear: _____
   Enables different readers to picture same intent; simple sentences; not ambiguous

2. Significant: _____
   Of genuine worth; tangible results; appears to relate to Center goals

3. Measurable:

   a. Audience: _____

   b. Behavior: _____

   c. Conditions: _____

   d. Degree: _____

Like others (especially Patton (1978)), we found the objectives develop-
ment process frustrating, time consuming, and definitely not cost effective.
We constantly asked ourselves "Is it really worth it?" In reality, we had
little choice. With nearly all funding agencies demanding objectives, we
looked at ways to improve the objective development process.

Program staff wanted on-the-spot critiquing and rewording of objec-
tives. They did not want detailed written feedback that took precious time
from other activities. Informal feedback appeared more effective than
formal, structured reporting. A tool for more immediate feedback was needed.
This tool had to meet two needs. First, it had to produce measurable objec-
tives. Second, it had to give program staff feedback on how well objectives
worked together to accomplish priority program goals. The tool that resulted
was based on a model describing how support programs, such as intermediate
educational agencies' programs, assist district instructional programs.
Using this model and the categories of clarity and measurability

from the Objectives Checklist the evaluator could work interpersonally with program staff to develop objectives. Bedore we describe the model let's see how evaluation staff use the model. The model suggests developing a "student outcome" objective wherever feasible. If this is not feasible, often the case in an intermediary service agency environment, "an instructional process" level objective would be required. The idea is to have "priority objectives" as close to the student outcome level as possible. Once the highest level objective is developed other objectives must logically relate to it at lower levels in the model. For example, an intermediary service agency adult education program might have as its highest level objective an "instructional process" objective specifying certain desirable adult educator behaviors, then the "input level" objective might specify paid time to tryout those behaviors. The point is the logical necessity of the "lower level" objective to accomplishing the higher level objective would be threatened if the lower level objective were not accomplished.

LEVELS OF PROGRAM OBJECTIVES MODEL

This simple approach (Note 1) focuses on students and the outcomes the program intends students to evidence. We term this level student outcome. We divide the many hierarchical systems in education into two broad classes: support programs and instructional programs. Instructional programs are programs whose immediate purpose is to engage the student in learning. Support programs are all the other educational programs whose outcomes facilitate instruction; however, they do not directly teach students. Obviously the support programs themselves occur at many levels. For an example of hierarchical order among support programs consider the following: a university teacher training program, a school district personnel selection system, a school district inservice education system,

and, finally, the instructional program. We believe educational planning
is fortunate in dealing with just the two broad classes of instructional
and support programs at this point.

We conceive the instructional program to include input, instructional
process, and student outcome levels. We use these terms in the broadest
sense of familiar usage.

- Student outcome is student performance. The focus of an objec-
tive at this level is to define the good which our students will
evidence in their behavior.

- Instructional process means whatever occurs between the student
and his instructors or instructional media. It includes all
variety of instructional technology. The focus of an objective
at this level is to define the unique, powerful instructional
transaction that is to transfer the rich mix of inputs into
important outcomes for students.

- Input means the money, staff, time, and material resources
dedicated to the instructional process to come. The focus of
an objective at this level is in specifying the "key ingredient"
--the input that is so vital, e.g., a minimum amount of student
time, that its absence would preclude accomplishing student
outcomes.

Support programs have as their one purpose producing client learning
and products which can become inputs to the instructional program. We
conceive these support programs to include resource, activity, and client
learning/product levels. These terms are synonyms for the inputs, processes
and outcomes of the instructional program. Again we are using these terms
in their broadest, most familiar usage.

- Client learning/product means the knowledge, attitude, skills, or
tangible capital gained by the client or school system as a res-
ult of activities in the support program. The only purpose of
these gains are as inputs to the instructional program. Support
program objectives at this level focus on the critical learning
or product. For example, a training program might focus on a key
instructional competency, e.g., level of classroom questioning.
A resource provision program might focus on providing a certain
set of materials (product) to be used in the instructional process.

- Activity means the training, assistance, information dissemination,
facilitation, or manufacturing which the support program undertakes
to transform its own resources into learnings and products of
genuine usefulness to the instructional program.

LEVELS OF PROGRAM OBJECTIVES

INSTRUCTIONAL PROGRAM

INPUTS ──▶ INSTRUCTIONAL PROCESSES ──▶ STUDENT OUTCOMES

SUPPORT PROGRAM

RESOURCES ──▶ ACTIVITIES ──▶ CLIENT LEARNING OR PRODUCTS
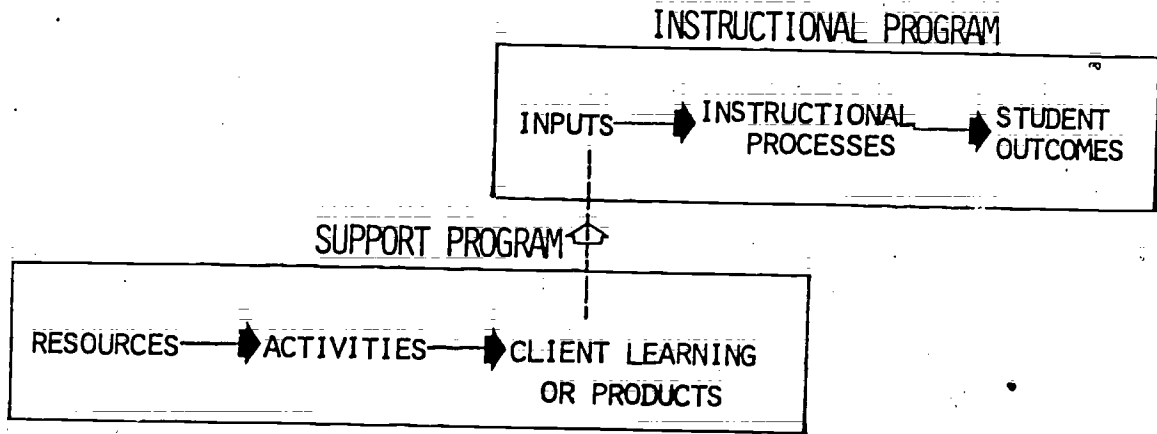
A network of support programs helps to maintain an instructional program of a district. Programs supporting the instructional program include but are not limited to the district central office, community organizations such as parent/teacher organizations, local colleges and universities, and state and intermediate education service agencies (see figure below). Evaluation offices represent support programs which either feed into other support programs or directly serve the instructional program.

Figure 3
Support Program Inputs to Districts
· Support Programs

| Local University Support Program |

| Intermediate Education Agency Support Program |

(e.g. preservice training)   (e.g. inservice training)

| School District Instructional Program |

(e.g. curricular development) (e.g. classroom aides)

| District Central Office |

| Parent Organization |
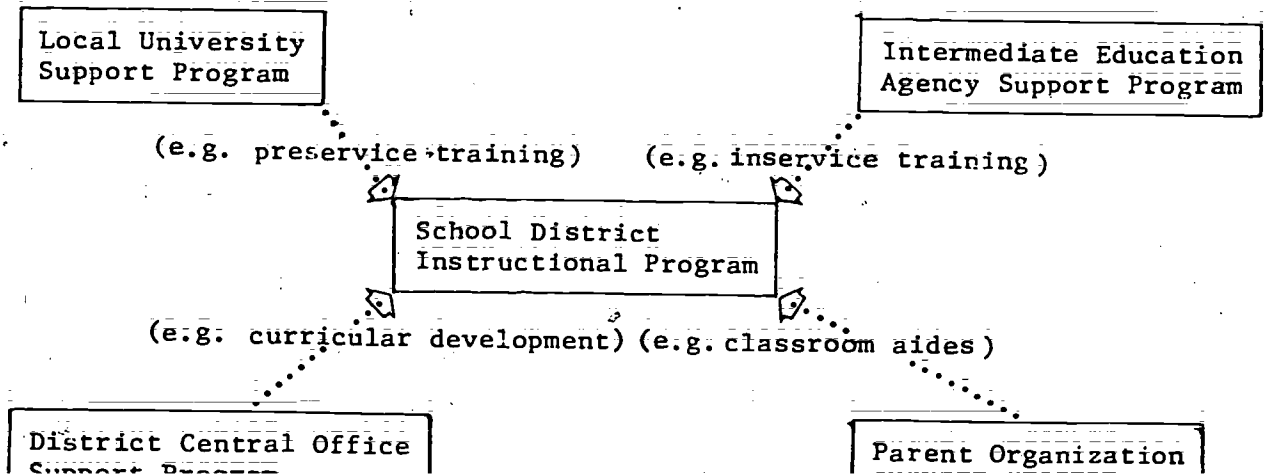
Support programs can impact the same part of the district instructional program. The classroom teacher, for example, is directly affected by both university preservice preparation and inservice activity sponsored by an intermediate service agency. In sum, the relationship between the instructional program and its various support programs as well as the interrelationship among support programs themselves is complex. Again, we believe educational planning is fortunate in dealing with just instructional programs and support programs as broad classes of programs.

This paper focuses on one aspect of this complex relationship. The "Levels of Program Objectives" model explains the relationship between an instructional program of a district and various programs supporting the district program. A variety of support programs are provided by intermediate educational service agencies, the context for this paper. The remainder of the paper documents how each level of the model and its corresponding priority objectives can be evaluated.

EVALUATION METHODS FOR EACH LEVEL OF PROGRAM OBJECTIVE

Once we established the model of program objectives, we began to arrive at a consensus of what the most appropriate evaluation method was for each level of objective. Just as the objective-based model was the most appropriate for our setting but not the ideal of evaluation (Stufflebeam & Webster, 1980), so too these methods suggested as appropriate are feasible but not ideal. Each level of program objective has a corresponding "suggested" evaluation method. This relationship is summarized in the accompanying charts. Objectives corresponding to program goals -- or priority objectives -- are evaluated using the associated evaluation method. Either the "suggested" method -- that judged to be most appropriate for our setting -- or the "other" method if we have less resources to devote to the objective. (See chart on next page).

LEVEL OF PROGRAM OBJECTIVE	EVALUATION METHOD	
	SUGGESTED	OTHER
INSTRUCTIONAL PROGRAM Level I: Student Outcomes Priority objectives at this level specify the knowledge, attitude, or skills students will evidence or the products they will construct. A student outcome objective is highly desirable for all programs.	Student performance measures (including achievement, psychomotor and attitudinal). Expert reviews of student products.	Educator judgment of student performance collected in face-to-face or telephone interviews, but not surveys.
Level II: Instructional Processes Priority objectives at this level specify critical behaviors which should occur when student receives direct or mediated instruction.	•Providing sufficient resources are available, measures of the classroom environment (e.g., observation). •Interviews measuring teacher implementation including the use of instructional materials (e.g., LoU interviews -- Note 2).	Educator reports such as "Teacher Implementation Checklists" preferably in a telephone or face-to-face context.
Level IIIa: Inputs from the Instructional Program Priority objectives at this level specify inputs that are "key ingredients" for accomplishing student outcomes. Inputs from the instructional program include money, time, and materials.	Measures of the amount/adequacy of inputs, especially the amount of time allocated to instruction.	Educator reports preferably in a telephone or face-to-face context.
10 Level IIIb: Inputs from the Support Program Priority objectives at this level specify inputs that are "key ingredients" for accomplishing student outcomes. Inputs from the support program include skills acquired in inservice training and classroom consultative assistance.	Measures of the amount/adequacy of inputs, especially the amount in classroom consultative assistance received. Measures include interviews assessing the adequacy of the consultative assistance.	Educator reports such as a Consultative Assistance Rating Form carried out in a telephone or face-to-face context. 11

LEVEL OF PROGRAM OBJECTIVE	EVALUATION METHOD	
	SUGGESTED	OTHER
SUPPORT PROGRAM Level IV: Client Learnings Priority objectives of this level specify the knowledge, attitudes, or skills educators will evidence, or the products they will construct.	Educator performance measures (e.g., pre/posttests) Expert review of educator products	Educator judgment on workshops results (e.g., normed Workshop Evaluation Form) Follow-up telephone interviews
Level V: Activities Priority objectives at this level specify the quantity and quality of support program activities such as training, consultative assistance (not on-site), information dissemination, and coordination/liaison.	Hours of service measures (e.g., educator hours). Educator judgments on quality of services preferably in a telephone or face-to-face context.	Participant observation Educator judgment on workshop conduct (e.g., normed Workshop Evaluation Form)
Level VI: Resources Priority objectives at this level specify tangible products (or their revision) such as instructional modules, films, kits, or evaluation findings reported in needs assessments, interim memoranda and final reports.	●User tryout (piloting parts of the product with users) ●Using Evaluation Data Form: a format for reporting major evaluation findings, discussing these with project staff, and arriving at appropriate action statements.	Intrinsic evaluation (Scriven, 1967) methods such as documenting content of product, reviewing product objectives, logical analyses of the relationship between product activities and client learning objectives, and expert reviews.

12

13

Let's first look at the instructional program. The suggested method for student outcome objectives is a measure of student performance. We do not often have an opportunity to use student performance measures because our agency's programs are primarily directed toward teachers. Therefore, the instructional process objective is a common one and we suggest evaluating it by interviews measuring teacher implementation of critical features of a program. The specific technique we rely on is an adaptation of the Levels of Use focused interview (Note 2) developed by Gene Hall and associates at the University of Texas at Austin. For input level objectives, we suggest measures of amount or adequacy of the input. Time measures can be particularly revealing.

Looking at the support program, we suggest educator performance data is most appropriate for the highest level, client learning. This would include posttesting of trainees on objectives. We are not always able to convince project staff of the necessity or even desirability of post-testing. Posttesting may also be impractical in ill-defined projects, because we do not have the time to clarify training objectives and develop items. In such cases a normed workshop evaluation form is used. At the activity level, we suggest hours of service provided to educators in such activities as training, consultative assistance, information dissemination, and coordination/liaison. This is often more revealing than the educators' judgments on the quality of services. A particularly useful "other" method at the activity level is participant observation. Evaluation staff are encouraged to attend some aspect of project activity. In some cases evaluation staff actually go through project training. Finally, at the resource level, our most powerful method is to document use of information with the Using Evaluation Data form. The form provides a format for

reporting major evaluation findings, forces an occasion for formally

discussing ti. se with project staff, and allows for recording action

·taken.

The application of "Levels of Program Objectives" to a program

evaluation setting is further illustrated in the appendix. Example

evaluation questions and products corresponding to each level of objec-.

tive are presented for those evaluators wishing to learn more about the

model.

PRIORITY OBJECTIVES

Educators rarely have time to plan programs adequately before conduc-

ting them. Educators face so many immediate problems they perceive they

must act immediately. Unfortunately, they do not reflect on the cogency

of their actions. When properly used, the "Levels of Program Objectives"

model causes educators to examine the consequences of their action. The

structure of the model encourages objectives to be written at the highest

possible level. Priority objectives then are identified.

Priority objectives correspond to the goals of the program. These

are the objectives which must be achieved. If they are are not, the board,

advocacy group, special interest representation, or funding agency will

surely question program funding! They are so vital that program staff too

believe they must be accomplished. In our setting a $50,000 program may

have three, objectives, but just one priority objective.

The number and scope of objectives determines the allocation of evalu-

ation resources. Practical consideration dictates that every objective can nc

be ideally evaluated. Seen another way, not all written objectives are

priority. Evaluation resources are first dedicated to priority objectives;

remaining resources are spread among other program objectives. Often, the

level of evaluation method selected corresponds to a lower level objective.

(A client learning objective (IV), for example, is evaluated using methods suggested for the lower level (activities objective (V)). The model then can be applied to the real world of program evaluation where there are rarely enough resources to get the job done.

BEYOND THE EVALUATION OF PRIORITY OBJECTIVES

The reader will have noticed the heavy summative flavor to the "Levels o Program Objectives" and evaluation methods suggested. However, we have come t believe summative information on accomplishment of objectives must be complemented by formative information which responds to specific concerns of program staff. Furthermore, extensive involvement of evaluation staff in the program is essential if action is to result from evaluation findings.

Our Evaluation Services unit meets its responsibility for summative evaluation by selecting priority objectives for evaluation. Evaluation staff usually collect data on the amount of service provided under priority objectives, and, for some priority objectives, data on the quality of that service.

After making sure that the priority summative question(s) will be answered, evaluation staff and program staff focus on concerns of program staff. Formative evaluation includes evaluation questions that are of present concern to the staff and can therefore be included in an evaluation plan, as well as allowing resources for additional evaluation work which emerges in the course of the program year. As time has gone on we have been shifting more and more to formative and responsive evaluation.

CLOSING COMMENT

In closing, several things need to be said about the model. First, it seems to work in our setting. We have been able to successfully classify over 800 objectives using the model. Presentation of the model at this conference is our first attempt at dissemination. Second, the concepts of the model make sense to both evaluation and program staff. This makes the model

useful in breaking down the oh-so-common communication barriers in objec-
tives clarification. Third, the model has provided a unifying force in
our newly developing evaluation office. Explaining our evaluation approach
has been difficult. The model provides an excellent starting point.
Finally, we believe the model has the potential to be an effective training
guide in an objectives-based setting. Our goal this year is to train staff
with it. If you're interested, we can report the results of our training
activities to you next year. The conference will be held in our hometown of
San Antonio.

Reference Notes

1. Drezek, et al., Program objectives. Paper presented at the annual
   meeting of the Southwest Educational Research Association,
   San Antonio, Texas, February 1980.

2. Roecks, A., & Andrews, J. Levels of use interviews: A successful
   formative evaluation tool. Paper presented at the annual meeting
   of the American Educational Research Association, Boston, April 1980.
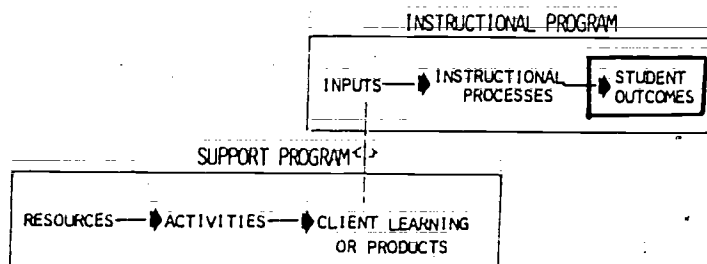
References

Heath, R., & Nielson, M. The research basis for performance-based
  teacher education. Review of Educational Research, 1974, 44(4), 463-484.

Patton, M. Utilization-focused evaluation. Beverly Hills: Sage, 1978.

Stufflebeam, D., & Webster, W. An analysis of alternative approaches to
  evaluation. Educational Evaluation and Policy Analysis, 1980, 2(3),
  5-20.

INSTRUCTIONAL PROGRAM: Level I, Student Outcomes

*Priority objectives at this level specify the knowledge, attitude, or skills
students will evidence or the products they will construct. A student outcome
objective is highly desirable for all programs.*

```
                              ─────INSTRUCTIONAL PROGRAM─────
                        ┌──────────────────────────────────────┐
                        │  INPUTS──▶ INSTRUCTIONAL  ┌─▶STUDENT  │
                        │            PROCESSES      │  OUTCOMES │
                        │                    │      └───────────│
                        └────────────────────┼─────────────────┘
                 ─────────── SUPPORT PROGRAM◀│▶
        ┌───────────────────────────────────┼──────────────┐
        │  RESOURCES──▶ACTIVITIES──▶CLIENT LEARNING         │
        │                          OR PRODUCTS              │
        └───────────────────────────────────────────────────┘
```

Program context:	A model program for deaf-blind infants funded under IV-C of Public Law 93-380.
	The program component illustrated by the objective below was a direct instructional program. Inputs of 1.5 hours per week were specified; no instructional process was defined.
Evaluation method:	Student performance measure: The Learning Accomplishment Profile documents developmental rate by observation.
Priority objective:	Given an average of 1.5 hours per week of infant-parent training, at least two-thirds of six deaf-blind infants, 0-2, will have a greater developmental rate in specified areas of instruction than their rate one month after entering the program, as evidenced by a 10% increase in developmental rate on the Learning Accomplishment Profile for Infants (LAP).
Evaluation question:	How many deaf-blind infants have increased their developmental rate by 10% in specified areas of instruction?
Evaluation product:	See example 1 on next page

EXAMPLE 1:   LEVEL I: STUDENT OUTCOMES
              SUGGESTED METHOD: STUDENT PERFORMANCE MEASURES

Evaluation Question 2:   *How many deaf-blind infants have increased
                            their developmental rates by 10% in specified
                            areas of instruction?**

Pre- and post-service assessments using the Learning Accomplishment Profile
(LAP) have been administered to the six students receiving regularly sched-
uled training (1.2 to 1.9 hrs/wk). The table below presents both pre- and
post-LAP data for these six cases:

Change in Developmental Rates for DB Infants

		Pre-Service			Post-Service			During-Service
ID#	DOB	Age (in mos.)	Level	Rate[a]	Age (in mos.)	Level	Rate[a]	Rate[b]
537	4/12/79	6.0	1.4	0.23	10.5	3.5	0.33	0.46
528	8/3/77	21.0	2.0	0.10	32.4	2.1	0.06	0.01
503	3/27/77	19.1	5.9	0.22	34.8	6.1	0.18	0.10
535	11/12/76	32.3	1.5	0.05	41.0	1.7	0.04	0.02
254	4/14/77	25.0	1.6	0.06	37.0	1.8	0.05	0.02
539	8/21/77	24.9	6.0	0.24	29.8	6.7	0.22	0.14

[a] The pre-and post-service developmental rate reflects months of development
per month of chronological age.

[b] The during-service developmental rate reflects change in developmental
level pre to post divided by months of service.

One student has demonstrated an increase in overall developmental rate as
well as in all areas of instruction (see p. 17); this student's overall
developmental rate has doubled during training. One of the five remaining
students showed a definite increase in developmental level, and the rest
were able to maintain their developmental level.

Because there is no comparison sample for this population, it is difficult
to identify an appropriate criterion for these infants. This year, the same
goals were tentatively set for the deaf-blind infants as were set for the
visually handicapped infants. The criteria seemed appropriate for the VH
infants but not for the DB infants (see pp. 18-20 for a report of VH student
progress).

*The infant-parent trainer sees herself as providing services affecting all
six areas of development.

INSTRUCTIONAL PROGRAM: Level II,   Instructional Processes

Priority objectives at this level specify critical behaviors which should occur when a student receives direct or mediated instruction.
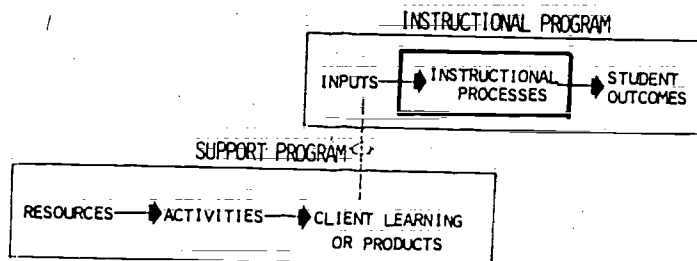
Program context:	An Elementary and Secondary Education Act, Title IV-C, model program whose purpose was to train teachers in innovative mathematics methods. There was no student outcome objective. Support program objectives included developing a module (resource level) and training (client learning). An instructional program input level objective specifying the provision of consultative assistance was present.
Evaluation method:	A Level of Use interview measuring teacher implementation.
Priority objective:	Between December 1, 1979, and May 30, 1980, participants will develop and implement a plan to improve mathematics instruction in at least two areas where training was received. The plan will include objectives, activities, and evaluation. Accomplishment of this objective will be evidenced by: (1) plans on file at ESC-20 for at least 70% of the participating teachers, which will include objectives, activities, and evaluation, and (2) responses to questions asked during Levels of Use interviews with a sample of teachers indicating that 50% are implementing their plan.
Evaluation question:	Are 50% of the teachers implementing their plan?
Evaluation product:	See example 2 on next two pages.

EXAMPLE 2:   Level II: INSTRUCTIONAL PROCESS
                         SUGGESTED METHOD: INTERVIEW MEASURING IMPLEMENTATION

EVALUATION SERVICES MEMORANDUM

TITLE: Math Attitude Levels of Use Report

PERSON PREPARING: John Andrews

DATE: June 12, 1980

DOCUMENT NUMBER: 79:203

PROGRAM OBJECTIVES ADDRESSED

Objective 3.0 of the 1979-80 Teacher Attitudes and Competencies in Mathematics
proposal states that 50% of participating teachers will be implementing new
strategies to improve their mathematics instruction in at least two of the four
areas in which training was provided.

Objective 4.0 states that 75% of the participating teachers who received technical
assistance will consider it to be helpful.

Both of these objectives were assessed by conducting interviews with a sample of
teachers trained.

FINDINGS ON ACCOMPLISHMENT OF THE OBJECTIVES

1.   A total of 76% of the teachers were found to have implemented new strategies
     in at least two areas. All those who were implementers were able to use the
     activities smoothly in the classroom. This is probably due to their selecting
     and using activities that were most consistent with their own teaching style.
     The non-implementers did not use the new activities because they were satis-
     fied with what they were already doing.

2.   By the time of the interview, 90% of the teachers had received a technical
     assistance on-site visit. Of these, 63% believed the visits to be useful.
     Teachers were most likely to believe the visits were useful if the consultant'
     demonstrated, with the students, some activity or procedure.

ADDITIONAL FINDINGS

1.   The teachers were most likely (81%) to have used new strategies in the area
     of Concrete Activities. However, few teachers seemed to have internalized the
     Concrete-Pictoral-Abstract continuum. Rather, they saw the Concrete Activities
     as isolated tools they could use.

2.   The teachers were least likely (33%) to use the new strategies in the area of
     Problem Solving. This was apparently due to the fewer number of specific
     Problem Solving Activities and materials suggested to them. Also, there may
     not have been enough workshop time to adequately cover the subject. Teachers
     had   difficulty translating, on their own, theory and concepts into classroom

3. Most teachers (76%) were able to use the activities on Student Attitudes.
    Real life math activities were the ones most frequently used.

4. Less than half of the teachers (43%) were using the Language of Math Activities

5. About 15% of the teachers had already completed the teacher developed activites
    they were suppose to develop for the project. About 70% indicated that they
    planned to do so. The most frequently given reason for not having completed
    the activities was lack of time.

6. The strong points of the inservice training were seen as being the multitude of
    ideas that were presented and the opportunity to share with other teachers.

7. The weak points of the training were seen as (1) too much emphasis on theory,
    (2) scheduling the workshops after school, (3) scheduling the workshops in the
    middle of the school year, (4) the lack of time to make materials, and (5)
    not having the workshops separated for Primary and Intermediate teachers.

8. The teachers' own attitudes toward math apparently improved.

9. A number of teachers seemed isolated from feedback on the quality of their in-
    struction. An important role for the project staff was found to be reinforcing
    and encouraging teachers for the good work they were already doing.

INSTRUCTIONAL PROGRAM: Level III, Inputs

Priority objectives at this level specify inputs that are "key ingredients"
for accomplishing student outcomes.   Inputs include money, time, materials from
the instructional program itself and skills acquired, products, or consultative
assistance from the support program.

INSTRUCTIONAL PROGRAM

INPUTS → INSTRUCTIONAL → STUDENT
         PROCESSES   OUTCOMES

SUPPORT PROGRAM

RESOURCES → ACTIVITIES → CLIENT LEARNING
                         OR PRODUCTS
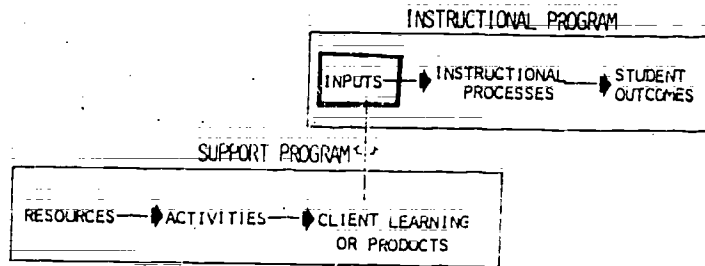
Program context: Another P. L. 93-380, VI-C model program for deaf-
                         blind students -- this time adolescents. This instruc-
                         tional program input level objective was accompanied
                         by a priority objective at the student outcome level,
                         a measure of work skills. No support program priority
                         objectives were written. The instructional process
                         was not defined in an objective.

Evaluation method: Amount of time allocated to the instructional process.

Priority objective: Between July 1, 1979 and June 30, 1980, four deaf-blind
                         adolescents will receive work evaluations -- three days
                         each; four others, work adjustment training -- 160 hours
                         each, and two others, paid work placement, 300 hours
                         each as evidenced by (1) documentation of amounts of
                         experience and (2) case-by-case interviews with the
                         primary work trainer (aide) and supporting daily Work
                         Training Center Performance Records.

Evaluation question: Has 640 hours of work training been provided?

Evaluation Product: See example 3 on next two pages

EXAMPLE 3: LEVEL III: INPUTS

SUGGESTED METHOD: AMOUNT OF TIME ALLOCATED

Evaluation Question 2   *Has 640 hours of work training been provided?*

As of March 30, 1980, a total of 505.2 hours (402.2 work hours, and 103
live away experience hours) of training had been provided to the 14
clients served by the project (see Table 1). Based on the average amount
of service per quarter and the scheduled live away for June 1-6, it can
be estimated that the project staff will probably come close in providing
the 640 hours of training.

The evaluation question states work training, however, the project staff
view the teaching of independent living skills and work training skills as
one in the same. This view is substantiated by a high correlation r = .86
of the San Francisco Vocational Competency Scale used to measure students
pre to post growth in work skills with the Camelot Behavioral Checklist
used to measure students pre to post growth in independent living skills
(see Evaluation Question 5).

The mean amount of service for the 13 clients with service was about 39.0. Ther
is high variability in the amount of service per client. One client received 13
hours (#6504), and three clients received what might be interpreted as a low
amount of #6527, #6506, #6524, and one client (#6518) received no service, but
this was due to this client being out the first five months of the program for
major eye surgery.

The December work training hours were low because of a problem that arose with
transferring the Goodwill ERS students to community work sites. Since solving
this provlem the primary work trainer has worked with clients of the project on
small group rotating basis.

Site visits to Goodwill North substantiated the efforts of project staff in
providing work adjustment training. A formal interview was conducted on 12/12/7
with the Head of Housekeeping at the Downtown Holiday Inn. The interview veri-
fied the appropriateness of this setting for work adjustment training
(see pg. 13)

Table 1

Work Training Hours*

Quarters	STUDENTS													TOTAL
	6531	65m1	6510	6533	6534	6506	6537	6540	16541	6504	6513	6502	6315	632	
Jul.	33.5	29	-	-	-	-	-	-	-	-	-	-			.25
Aug.	-	31	2	2	2	5	5	2	2.25	-	-	4.75			51
Sep	-	44	1.5	1.5	1.5	1.5	1.5	1.5	1.5	-	-	4			57.5
1st Quarter	38.5	104	5.5	3.5	3.5	3.5	3.5	3.5	4.75	-	-	9.75			172
Oct	5.3	6	11.8	8.8	4	4.5	12.3	14.9	14.8	5.3	53	14.9			111.7
Nov	-	-	8.5	2	1	-	-	7.5	5.5	2.25	9.75	9.5			78
Dec	-	-	-	-	-	-	-	-	-	7.5	11.5	-			19
2nd Quarter	5.3	6	20.3	10.8	5	4.5	12.3	21.2	20.3	15.05	38.55	16.8			208.7
Jan	5.5	24.5	3.75	4	5.5	6.5	-	-	6.5	-	6	6.75		2.5	72.5
Feb	-	1	.66	.87	-	-	.66	1.54	-	5.5	6.37	-		6.4	23
Mar**	-	4	1.14	1.14	-	-	1.14	1.14	-	3.47	3.47	-		3.5	19
3rd Quarter	5.5	29.5	5.55	6.01	5.5	6.5	1.8	2.68	6.5	8.97	15.84	6.75		18.4	124.5
Grand Total	48.3	139.5	31.35	20.3	14	14.5	17.6	27.98	36.55	51.02	54.39	32.3	-	18.4	505.2

*The total work training hours includes approximately 103 hours of live-away experience hours as the project staff see these hours as being supplemental training in the area of work skills.

**The total amount of service indicated for March does not include the weekly activity reports for the weeks of March 3-7, for the work trainer, and March 24-28, for the project manager, as these reports were not forwarded to evaluation services.

SUPPORT PROGRAM: Level IV, Client Learnings

Priority objectives at this level specify the knowledge, attitudes, or skills educators will evidence, or the products they will construct.

```
                              INSTRUCTIONAL PROGRAM
                        ┌──────────────────────────────────┐
                        │         INSTRUCTIONAL      STUDENT │
                        │ INPUTS ─▶  PROCESSES  ─▶  OUTCOMES │
                        │              │                    │
                        └──────────────┼────────────────────┘
                 SUPPORT PROGRAM ◀─▶    │
        ┌──────────────────────────────┼──────────┐
        │ RESOURCES ─▶ ACTIVITIES ─┬─▶ CLIENT LEARNING │
        │                          │   OR PRODUCTS     │
        └──────────────────────────┴──────────────────┘
```
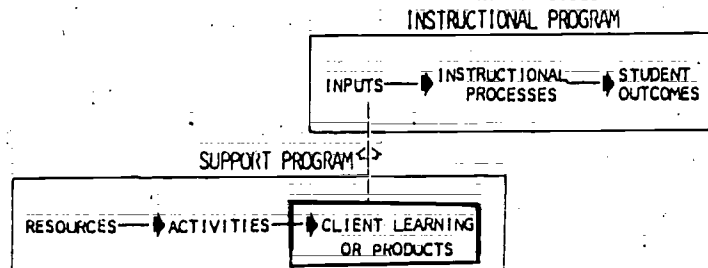
Program context: An early childhood education for the handicapped in-
                      centive grant, funded under Public Law 94-142. The
                      program contained an instructional program objective
                      at the instructional process level addressing imple-
                      mentation of mastered learning. The support program
                      objective is given below.

Evaluation method: Educator performance measure (Posttest)

Priority objective: Between January 30, 1980 and August 31, 1980, fifty
                      additional personnel involved in early childhood
                      programs will have the necessary skills and knowledge
                      to conduct effective parent involvement groups.
                      Accomplishment of this objective will be evidenced by
                      80% of the participants demonstrating mastery on
                      (a) the Posttest (80% correct) and (b) the Group Skills
                      Checklist (60% correct, including summarizing).

Evaluation question: Did 80% of the participants demonstrate mastery?

Evaluation product: See example 4 on the next two pages.

SUGGESTED METHOD: POSTTEST

PRE AND POST-TESTING

Background

Objective 3(a) of the proposal specifies that fifty early childhood
personnel will have the necessary skills and knowledge to conduct parent
involvement groups as evidenced by 80% of the participants scoring
80% or higher on the Posttest.

Pre and Posttest items used were the same as for the previous year (see
Attachment). Two additional posttest only items were added this year
as a check to verify if participants are learning more than the
"required" materials.

A random sample of ten cases were chosen by the evaluator to see if
the test scoring procedure (as scored by the project manager) was
reliable. An interrater reliability of .98 was obtained.

Nearly all (48 of the 55 participants, 87%) had completed the pre and
posttest.

Findings

Objective 3(a) was reached in that 94% (45 of 48) of the participants
scored 80% or higher on the Posttest.

Nearly all (94%) of the participants scored 80% or higher on the two
additional four part items indicating the participants were beyond
studying only for the Posttest.

On the average, scores rose from 17 on the Pretest to 94 on the
Posttest.

Table 1: Distribution of Posttest Scores

	1979		1980		Posttest Only Items (maximum 8 points)		
Score	#	%	#	%	Score	#	%
70-79:	2	5%	3	6%	4 - 6:	3	6%
80-89:	3	7%	5	10%	7:	11	23%
70-99:	16	39%	24	50%	8:	34	71%
100:	20	49%	16	33%			

GROUP SKILLS

Background

Part b of Objective 3 in the proposal states that at least 80% of the participants will demonstrate use of at least 60% of the group skills including summarization.
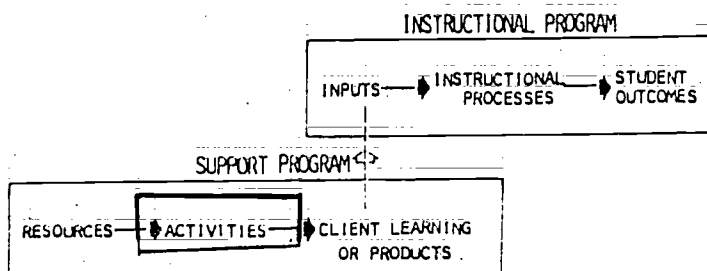
A sample of 42 participants were randomly selected to conduct simulated parent meetings of approximately 20 minutes each. A project staff member observed each participant for demonstrating any of ten group skills (see Table 3).

Findings   (See Tables 1, 2, and 3)

- About 45% of the participants demonstrated 60% or more of the group skills including summarization.

- The number of group skills demonstrated in this year's longer sessions (about 20 minutes instead of 10 minutes) greatly increased over last year's with the exception of "task setting and obtaining committments."

SUPPORT PROGRAM: Level V, Activities

Priority objectives at this level specify the quantity and quality of support program activities such as training, consultative assistance, (not on-site), information dissemination, and coordination/liaison.

```
                              INSTRUCTIONAL PROGRAM
                    ┌──────────────────────────────────────┐
                    │           ┌ INSTRUCTIONAL ═══ ┌ STUDENT │
                    │ INPUTS ──── │   PROCESSES      ▼ OUTCOMES │
                    │           └─────┬─────           │
                    └─────────────────┼──────────────────────┘
          SUPPORT PROGRAM◁▷           │
    ┌──────────────────────────────┐  │
    │ RESOURCES─┤▶ACTIVITIES ──▶│ CLIENT LEARNING │
    │           └───────────────    OR PRODUCTS    │
    └──────────────────────────────┘
```

Program context: A state and federally funded adult education
                          cooperative program. It involves multiple agencies
                          over a wide geographic area. No support program client
                          learning objectives were written. Instructional
                          program input level objectives were present, but
                          higher level objectives were not.

Evaluation method: Educator judgment on the quality of services

Priority objective: By May 30, 1980, all Adult Education staff will have
                          completed the required twelve hours of in-service training
                          provided. Training will consist of the following:
                          (a) A series of courses designed to provide teachers
                               with an opportunity to select training appropriate
                               to their needs and desires.
                          (b) Additional workshops that might be presented by
                               universities, state or federal projects, and teacher
                               organizations as applicable to the adult learner.
                          (c) Undergraduate and graduate program offerings by
                               area colleges and universities for college credit.
                          (d) Individualized training (films, modules, independent
                               study) applicable to the adult learner.
                          Accomplishment of this objective will be evidenced by at
                          least 50% of the Adult Education instructors responding
                          favorably to selected items on a workshop evaluation form
                          or during an individual interview, depending on type of
                          inservice completed.

Evaluation question: Did 50% of the instructors respond favorably (option "4"
                          or "5") on items 7 and 8 of the Workshop Evaluation Form.

Evaluation product: See example 5 on the next two pages.

EXAMPLE 5: Level V: ACTIVITIES
            SUGGESTED METHOD: JUDGEMENT ON SERVICE QUALITY

WORKSHOP EVALUATION REPORT

RKSHOP TITLE: Teaching Readking Skills   DATE OF WORKSHOP: 4-23-80

NSULTANT/ ROJECT: Adult Education

ALUATION STAFF PREPARING REPORT   Ethel Turner   REPORT DATE: 5-6-80

WORKSHOP DESCRIPTION

MAJOR OBJECTIVES (SUMMARIZED):

To cover three primary areas for teaching reading to adults: (1) methods for
determining reading levels, (2) suggested graded materials to be used in a reading
program, and (3) methods for evaluating progress.

LENGTH OF WORKSHOP: 3 hours

OUTSIDE CONSULTANT: none

AUDIENCE: Number (%) completing WEF: 16 (100%
        Number attending: 16

        Type of Participants: GED, ABE, and ESL teachers
                              Teacher aide - 1

IDINGS ON THE IMPACT OF THE WORKSHOP

analysis was made of the responses to the "outcome" items which describe the impact
the workshop. These results are presented below.

A.   All   (100%) of the respondents indicated moderate of substantial new
      learning. For this question this workshop ranked 1st of the 29   Adult
      Education Workshops evaluated to date.

B.   Most   (81%) of the respondents indicated they will apply their learning,
      which could result in moderate or large increases in effectiveness. For this
      question this workshop ranked 7th of the 29   Adult Education Workshops
      evaluated to date.

Participant comments indicating the beneficial aspects of the workshop including—

   (1) having a consultant presenting the material who was enthusiastic, well
       prepared, and very knowledgeable about the subject (11 comments),
   (2) reviewing the Adult Education reading materials (8 comments),
   (3) evaluating and administrating reading tests; determining reading level
       (3 comments),
   (4) receiving an overview of the Goodwill Reading Program (2 comments), and
   (5) teaching basic reading (1 comment).

Two participants felt the workshop would be more useful if they had received a list
of addresses/publishers of the books and materials used by the consultant.

Participants provided suggestions for future workshops. They included:

   (1) working with adults - counseling and guiding (2 comments),
   (2) curriculum organization and management - e.g. developing a program,
       deciding it should be individualized, teacher-directed, etc. (2 comments),
   (3) teaching math to adults, and
   (4) teaching reading to adults.

Two participants commented on their needs as an Adult Educator. One commented
"I had a problem this school year in A.B.E. with not knowing what adult materials
and their sources were available. This workshop helped, but more information
would be helpful." The other respondent felt they needed to have their basic
curriculum and materials "uniform all over the city."

SUMMARY AND SUGGESTIONS

In view of the high percentage of "learning" and above average percentage of
application" to this workshop, and the favorable comments from the participants,
it may prove beneficial if this workshop was repeated next year for new teachers.
One participant's comment might be a reflection on why this workshop was well
received. "Use people who are presently teaching, in workshops. We need practical
ideas not just theory."

ELT/es

APPROVED_____
        Stan Drezek, Senior Evaluation Manager

SUPPORT PROGRAM: Level VI, Resources

Priority objectives at this level specify tangible products (or their revision)
such as instructional modules, film,s brochures, or information packets and
evaluation findings such as needs assessments, interim memoranda, or final
reports.
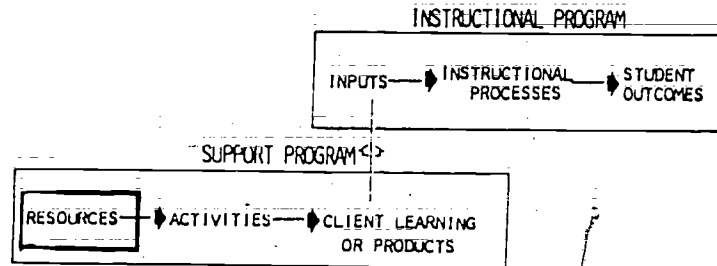
Program context: A Department of Education Teacher Center program.
                          The majority of objectives were at the support program
                          activities level. This priority objective at the resource
                          level was a needs assessment. Findings influenced the plan-
                          ning of support program activities.

Evaluation method: Using Evaluation Data form

Priority objective: By August 1980, the evaluation staff will have surveyed
                          a 5% random sample of teachers and administrators in
                          the area served by District XX, Texas State Teachers
                          Association regarding (1) the perceived instructional
                          needs of students in specific skill areas that are basic
                          to all academic disciplines and (2) specific inservice
                          needs of the teachers. Accomplishment of this objective
                          will be evidenced (1) by a final report in project
                          files and (2) at least three recommendations for program-
                          matic improvement made jointly by project and evaluation
                          staff as recorded on the Using Evaluation Data Form.

Evaluation question: Have the needs assessment findings been used to
                          recommend specific workshops for presentation?

Evaluation product: See example 6 on the next two pages.

FINDINGS	ACTION

NEEDS ASSESSMENT

Survey responses from a stratified random sample of 457 teachers and administrators regarding their specific inservice needs show

1. "Motivation--yours and theirs" was indicated by both elementary and secondary teachers as a needed inservice topic (55% and 54% respectively).

2. Additional topics for inservice indicated as a high need for elementary teachers (n=241) were 1) Developing subject materials appropriate to the needs, abilities, and interest of students (54%) and 2) Creating classroom materials (52%).

3. For secondary teachers (n=216) additional topics were 1) Handling stressful situations in the classroom (50%) and 2) Challenges for the Gifted/ Talented students (48%).

4. Respondents asked for additional inservices in mathematics specifically math games, developing mathematics learning centers, use of computers and calculators, metric education, Chisanbop, individualizing math, relearning basic math skills to teach slow learners, and alternative approaches to math.

The Needs Assessment data was used by project staff in planning 1979-80 spring and summer workshops, and is being used to develop the 1980-81 fall schedule. A summary of the Needs Assessment results was also reported to the area teachers/administrators in the Teacher Center Newsletter.

1.- 3. Specifically, during spring and summer 1980, in answer to teacher/administrator inservices needs the following inservices (and number of) were presented--

- Motivation (6)
- Stress (3)
- Creating classroom materials (46)

- Developing subject material appropriate to the needs and interest of the student (4)
- Challenging the secondary gifted/talented student (1)

4. Math inservices presented included--

- CHAMP (1)
- Chisanbop (3)
- Progressive trends in math (1)
- Teaching metric systems for bilingual teachers (1)

- Montessori method for teaching math (1)
- Math games
- Elementary math: an old approach made new (1)

---

* Action means concrete policy, procedures, decisions, or assignments.

"No action" may be justified but should be explained for the record.

FINDINGS	ACTION
5. Teachers also indicated a need for additional training in teaching oral language and language composition. Specifically, inservices suggested included speech and language development, improving listening skills, developing conversational skills, teaching grammar, and vocabulary development.	5.- 6. Inservices presented on oral language/language composition, and reading included--
6. In order to better teach reading to their students, teachers need additional training in teaching reading in the content areas, teaching reading to the middle school student, reading comprehension, activities for reading groups, and managing a reading program.	

5.- 6. Inservices presented on oral language/language composition, and reading included--

- Reading in the content area (4)
- Managing a reading program (3)
- Teaching writing (1)

- The I's of reading (1)
- Reading the financial pages of the newspaper (1)

Action means concrete policy, procedures, decisions, or assignments.

"⬤ ion" may be justified but should be explained for the record.