An outline for the total scheme of evaluation in a school district is presented for administrators. Evaluation of programs, teachers, students, and materials used in classrooms is discussed with respect to identification, data collection, and decision-making. This booklet begins with a summary and a chart that is intended to help an administrator identify the present status of evaluation in his school district. The chart is intended to be suggestive rather than exhaustive. The summary is followed by an explanation of each step in each of the four aforementioned areas. (Author/RC)
PROJECT EVALUATION

Capitol Region Education Council

ON EVALUATION:

FOR ADMINISTRATORS

Philip S. Saif

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1974
This booklet presents an outline for the total scheme of evaluation in a school district. Evaluation of (1) programs, (2) teachers, (3) students, and (4) materials used in the classrooms are discussed with respect to:

a. identification
b. data collection
c. decision-making

The booklet begins with a summary and a chart that will help an administrator identify the present status of evaluation in his school district. Use it to record the evaluation activities completed or underway in your school(s). The chart is intended to be suggestive rather than exhaustive. The summary is followed by an explanation of each step in each of the four areas mentioned above.

It is hoped that upon reading this booklet, the administrator will find the value(s) of using proper evaluative approaches.
I would like to thank all those who participated in reading the manuscript and offered their helpful suggestions.

Philip S. Saif, Director
Project Evaluation
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SUMMARY

* Evaluation should be applied to these four areas: programs, personnel, students and materials.

* Evaluation should be carefully incorporated during planning.

* Evaluation should be done for further decision-making.

* Evaluation of these four areas should be related.

It is hoped that upon reading this booklet, the administrator will find the value(s) of using proper evaluative approaches.
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### Evaluation Activities

#### Areas for Evaluation

- Administrators
- Teachers
- Staff
- Other

#### Academic Programs

- Language
- Mathematics
- Science
- Social Studies
- Health & Phys. Ed.
- Art & Music
- Industrial Arts
- Other

#### Educational Materials Used in Classes

#### Supportive Services:

- Guidance
- Pupil Personnel
- Other

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- Title I
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### Planning

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### Data

- Collecting Methods
- Analysis
- Report
- Decisions
The word "evaluation" has been equated with assessment and sometimes with judgment. Evaluation could be defined as the process of collecting data for decision-making.

There are two types of evaluation:

1. Evaluation at the end of a program or a year:
   "summative evaluation"

2. Evaluation that starts at the stage of planning:
   "formative evaluation"

Many administrators applied the first type—summative—for a long time and discovered that it becomes difficult, if not impossible, to implement corrective action after the program has been completed (after the "damage has been done").

With formative evaluation, modifications, or even corrections will be possible.
In education, there are four major areas for evaluation:

1. Programs
2. Personnel
3. Students
4. Materials used in the classrooms

I. EVALUATION OF PROGRAMS

Upon what bases should a school district delete a program or propose a new one?

A. Needs Assessment

Needs assessment is the determination of "things you want to do" based upon "what you are doing now." The administrator should be able to identify the following points:

1. The purpose to be served.
2. The target population.
   (What level/grade should be evaluated?)
3. The level of satisfaction.
   (When can a person feel satisfied by what has been done?)

4. The alternatives.
   (If the results are not satisfactory, what other choices can the administrator consider?)

B. Planning for Evaluation

Any administrator has the responsibility for planning an evaluation program. There are some basic questions that an administrator should ask.

1. Why should I have evaluation?
2. What should be evaluated?
3. Where shall I start?
4. Who will be involved?
5. How much will it cost?
6. What will I do with the information?

Planning looks at the total picture rather than fragments. Sometimes an administrator gets ambitious
and tries to evaluate everything at once and in the shortest possible time. This must not be the case. Evaluation is not a "one-shot" treatment; it is a continuous process.

Planning should involve two major questions:

1. What are the goals?
2. What are the objectives?

For the sake of clarification, the following definitions are stated:

A goal is a continuing purpose that provides a sense of direction through time. A goal is general in scope and may be thought of as providing a direction or an aim for school districts to work toward.

An objective is a measurable desired result to be accomplished within a specified time period. It closes a gap between a present situation and a desired situation within a time frame, or in other words, fulfills a defined need.
The two definitions form the following sequence leading from system-wide goals to student objectives:

1. School district goals
2. School program goals
3. Curriculum objectives
4. Unit instructional objectives
5. Instructional objectives

The following example illustrates the sequence.

**A Goal:** Everyone should understand man's relationship to his environment.

This is a goal for the society as a whole. To translate this goal into objectives means making it suitable for each level until it is used in the classroom. So, the goal mentioned above should be broken down into the following steps:

1. **District goal:** The student will understand man in relation to his physical environment.

2. **School Program goal:** The student will understand man as a user (consumer) of resources.
3. **Curriculum objectives:** The student should identify and explain the effects of:

(a) geography on his life and culture. (geography)

(b) the earth's atmosphere on his life and culture. (meteorology)

(c) culture and social mores on his life and culture. (anthropology)

4. **Unit Objectives:**

(If (a) is taken from #3 mentioned above):

i. The student will analyze the effects of proximity to oceans as a cultural element.

ii. The student will analyze the relationship of agriculture to his life.

iii. The student will identify the effects of elevation and terrain on various cultural units.

5. **Instructional Objectives:** Each of the items mentioned under #4 will be translated into written statements to what the student will do. (e.g.) The student will list five desirable desiderata for a seaport.
Observe that there is a difference between unit objectives and instructional objectives. An instructional objective is what the learner will do after instruction takes place.

C. Collection of Data

In any evaluation, data is a very important component. The following questions are to be asked:

1. **What data are needed?**

2. **Is there any part of the collected data that will not be used?** If yes, such part should not be collected.

3. **What are the methods of collecting data?**

   a. Observation techniques
   b. Questionnaires or opinionnaires
   c. Tests (criterion-referenced, norm-referenced)
   d. Video tapes
   e. Audio tapes
   f. Check lists
   g. Other methods (you should specify)
4. What will you do with data?

Once data are collected, analysis should take place. Analysis could be statistical, comparing, or even just numbers (as in the case of opinionnaires, when one says, for example, that 132 agree upon this point and 67 disagree).

5. To whom will you report data?

Data should be available to anyone who is interested. Decisions should be based upon the data and their analysis; e.g., a teacher could be a decision-maker concerning a student upon receiving the needed data; a superintendent is a decision-maker concerning programs and personnel upon data that he receives. There may be more than one person to make a decision.

D. Decision-Making

In order to make intelligent decision(s), the decision-maker(s) should have all related data to the matter. The following example may help:
A superintendent would like to make decisions concerning an educational program; whether or not he should keep the program. In such a situation, the superintendent should ask for the following data:

* What is the nature of the program?

* What are the effects of the program on students?

* If the program is deleted, would this affect the education of the students?

* If someone is suggesting a new program, upon what basis is the program rejected, and on what basis is the new program proposed, etc?

Decision-making is the desired result and culmination of the evaluation process. It is also the basis for further evaluation.
II. EVALUATION OF PERSONNEL

Connecticut Public Act 74-278 indicates that continuous evaluation of personnel is mandated. In this short discussion, the writer would like to raise questions which should be discussed by administrators who will be responsible for personnel evaluation.

1. Can personnel evaluation be objective? How?

2. Who will be accepted as evaluator(s)?

3. Would the assessment of a teacher be based upon his/her performance, or on the achievement of students?

4. After evaluation takes place, then what?

5. If a teacher should ask an evaluator, "What will you be looking for in my class?", what will the answer be?

The questions mentioned above, and many others, could be answered if the school district has a systematic way of evaluating its personnel.
A systematic personnel evaluation must include definite responses to these questions:

1. What will the teacher achieve during this year?

2. What will the students be able to do upon finishing the year with this particular teacher?

The responses must be determined, agreed to, and recorded (in a written agreement) between the teacher and his/her evaluator(s).

What will the teacher achieve during the year?

A. In the "affective domain"

The teacher should state two or three statements at the beginning of the year and agree on them with the evaluator. For example, the teacher may state: "The students in my class will have better attitudes towards each other." Or, "Upon finishing the year, the students will love math." Or, "I'll have better communication with my students." Such statements and many others could be developed.
They will serve as a reminder, and at the same time provide guidelines to the activities of the teacher towards realizing the desired influence. Interval examinations of such statements will be valuable to the teacher. For example, if a teacher of mathematics would like to see positive attitudes towards mathematics, the teacher can apply any of the tools that were developed to measure attitudes towards mathematics.

The purpose of using such statements and examinations is to identify strengths as well as weaknesses. The strengths can then be reinforced, and the weaknesses can be improved.

B. In the "cognitive domain"

Some administrators are asking teachers to write instructional objectives for their courses. This should not be the rule. Such instructional objectives have been written and published. There are thousands of them available.¹

¹Those who are in the CREC area can make use of the available resources in the Center for Evaluation. Instructional objectives published by IOX, the University of Massachusetts, and Westinghouse are available. Other objectives that have been developed locally are also available; namely, Simsbury's elementary math program.
The teacher can choose whatever is suitable for his/her course. In-service training need not exceed the level of enabling a teacher to modify an existing instructional objective, should a completely appropriate one not be available.

If instructional objectives are chosen and arranged sequentially, the teacher and the evaluator will be able to determine the outcome of teaching in the cognitive domain. How? Each objective includes its criterion. Such criteria form tests that are known as Criterion-Referenced Tests. The students' progress is assessed by testing what he/she learned.

Considering these two major points (statements for the affective domain and instructional objectives), much of the evaluator's work will be reduced. The teacher can examine results without too much effort. In the case of instructional objectives, the

2Further discussion of Criterion-Referenced Tests is found in the next section of this booklet discussing student evaluation.
teacher can tell what a particular student achieved. In the affective domain, scales, questionnaires, etc., will be good indicators as to student progress, or the lack of it. Consequently, the teacher can identify the strengths and weaknesses of the student. The evaluator's functions should be to help the teacher during the year to deal with problems, if any, and/or reinforce strengths. By doing this, evaluation will contribute to the educational growth of both the teacher and the evaluator. The evaluator will gain more knowledge of dealing with new situations, and the teacher will gain from the experience of the evaluator. There is no one way for evaluation to be incorporated; each school district and each school should set its own system for evaluation, keeping in mind that it is an on-going process.

Collecting Data

As mentioned before, only the collected data will be the needed professional information. This means that personal data should not be gathered unless there is a real need. In collecting data for evaluation of a teacher, the following information could be considered:
* The relationship between the teacher and students.

* The relationship between the teacher and other teachers.

* Methods used in teaching.

* Outcome of teaching.

* Scholarship of the teachers.

* The teacher and his/her improvement based on further studies, conferences, in-service training, etc.

* The ability of each student and the difference (if any) between his/her ability and present performance.

Decision-Making

Making a decision about a teacher MUST NOT be limited to matters of hiring and firing. Decisions could include points such as:

1. Where can this teacher be most productive?

2. What are the areas that could be improved?
3. Where did (or didn't) change take place?

4. Could this teacher be of more value if he/she undertakes further studies?

5. If there is a weakness, how can the teacher be helped?

III. EVALUATION OF STUDENTS

How can a teacher evaluate the work of a student? The usual answer is: test the student. Until the sixties of this century, standardized tests were the only way for assessing students; they are known now as Norm-Referenced Tests (NRTs).

1. The NRT scores of an individual are interpreted by relating them to test scores of other individuals.

2. An NRT measures the relative standing of an individual in a norm group or population. (One says that Suzy can do more than Sam. But this does not answer the question of what Suzy can or cannot do.)
The Criterion-Referenced Tests (CRTs) shift the emphasis upon norms to item proficiency.

1. A CRT is deliberately constructed to yield measurements that are directly interpretable in terms of specified performance standards.

2. A CRT answers the question of what kind of performance can or cannot be demonstrated by an individual student.

3. A CRT contains items that are tied to specific instructional objectives and can be grouped under specified skill levels.

The emphasis of a CRT is on item proficiency, not on norms.

The following chart compares NRTs and CRTs:
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<td>Resource Allocation</td>
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<tr>
<td>Guidance</td>
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CRT items are published by the same agencies which publish instructional objectives. There are also commercial companies publishing CRT items.

Those who are involved in preparing CRTs expect norms to be established, enabling schools to compare local results to a wider base. This point is being stressed nowadays because school districts are afraid of being accused of developing CRTs that test trivialities. However, such norms cannot be set without active participation from the schools.

Up to this point, the concern has been with the "cognitive domain." What about the "affective domain"?

Various methods have been developed to evaluate the students' feelings, attitudes, values and interests. Among these methods are: scales of attitudes, questionnaires, check-lists, video tapes, audio tapes, discussion groups, etc. The affective domain is more difficult to measure, but it is not impossible. Such tools will help the teacher and the school to identify where the strengths as well as the weaknesses are in the classroom and the school. It should not stop at this point, however. What should the teacher do about it? What should the school do?
Within the past few years, Dr. Wells Hively of the University of Minnesota started combining the cognitive and the affective objectives and he called this "domain-referenced."3

The evaluation of a student will not be complete without the third dimension; "psychomotor domain." The physical development of a student is of equal importance as the intellectual and the emotional (cognitive and affective) growth. Fortunately there are many "standardized" figures against which each student could be tested. Once again, the importance is not to have every student in a particular class perform something, but to have each student develop according to his/her physical abilities. For example, one does not expect every student to run a mile in 4 minutes. The psychomotor development is a CRT because each student can observe the development and the differences between what he/she did last week, or last month, and what he/she can do today.

3Those who are interested in this point are referred to CSE monograph #1 mentioned in the bibliography. Dr. Hively started this movement in 1968.
Collection of Data

What kind of data should the school have about a student? The evaluator (most probably the teacher) should decide on the needed information. If evaluation is in relation to the degree of progress in any educational area, the evaluator should determine whether or not certain data are needed. For example, does the evaluator need to know the student's I.Q.? Socio-economic background? Age? Health? More importantly, the teacher should know where a student is now (level of performance) and where that student should be (level of ability). Is there any difference between the two levels? The following illustrates this idea:

A school has a group of students in the 10th grade, but they read at the 7th grade level. The school (most probably) assigns a teacher to teach these students reading skills. The information given to the teacher is that the students read at the 7th grade level. This means that the teacher received achievement data rather than ability data. The teacher did not receive any information relative to what each student can do.

Another kind of information that is needed, but not usually provided,
is the level of retention. Does the teacher know how long a student can retain knowledge? Can the teacher predict the achievement of a student based upon the provided data? There are techniques by which such information could be provided.

Decision-Making

The analysis of collected data will help the teacher, as evaluator, to make an intelligent decision. The more information that is provided, the better judgment the teacher can make. Once again, the idea of evaluation is not to be confined here to promoting or flunking a student. The teacher should be concerned with questions such as:

1. How much does this student know?
2. How much can this student learn?
3. How much does this student need to learn?
4. How much does this student forget within a year?

Also, by obtaining such information, the teacher will be able to identify what he/she is accountable for, and
what he/she is supposed to do. This will help the teacher to reinforce strong learning experiences and help the student with his weaknesses.

If the teacher has information to answer these questions, then one can truly say that evaluation of a student is on the right track.

IV. EVALUATION OF MATERIALS

Upon what basis does a school district choose a series of books, a film, a record, a film-strip, etc? Such concern led to the establishment of organizations like EPIE (Educational Products Information Exchange). At present, EPIE is trying to reach as many states as possible to train personnel in evaluation of materials used in classrooms. EPIE is now using a format for evaluation of materials. Such a tool, although not perfect, is a step towards helping school districts to make sound assessments of what can be, and what should
not be used in classrooms.  

Collecting Data

What data does the evaluator need about the material(s)? Does the material contain definite instructional objectives? Does it follow a systematic methodology in presentation? Does it contain criteria for its evaluation? Is it relevant to the mental age of the students? Is it specific?

Decision-Making

Making a decision about materials used should not be confused with the value of the material itself. For example, materials explaining the metric system could be excellent in themselves; but they may not be relevant to the age level or the

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4EPIE conducted a five-day workshop for CREC to train school district personnel in using the developed tool. CREC, now, can help the school districts in evaluating new materials and/or the materials you use now. You may contact CREC to help you with the selection of materials used in classrooms.
sequence of instruction that a school district might have.

CONCLUSION

After an administrator identifies the need, and what is to be evaluated, and after the evaluation takes place, the question is, "Then what?"

Unless a decision is made based upon the collected data, evaluation would not complete the circle. For example, if an existing educational program is evaluated, what decision(s) will be made? The alternatives facing the decision-maker(s) will include:

a. keep the program as it is.

b. keep the program with some modification.

c. stop the program.

d. combine this program with another one.

e. make use of this program on another level or grade.
Similar decisions could be made with other areas of evaluation. For example, a teacher may be a great success with 8th graders, but a complete failure with 12th graders.

In conclusion, evaluation should not be a threatening word. It must be a process to which educators are attracted because of its benefits.
BIBLIOGRAPHY


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