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ABSTRACT
              The purpose of the project was to demonstrate the
role and function of the new intermediate school district and to show
that it could creatively initiate needed changes in education within
three years in Pierce County, Washington. Three specific projects are
delineated: (1) guidance training for teachers and administrators;
(2) development of local pupil personnel programs; and (3) inservice
training for practicing counselors. The last two were discontinued
after one year. Their goals and procedures are briefly presented.
Reasons for their failure are also discussed: (1) lack of behavioral
objectives; and (2) too unstructured a program. The surviving
project, Guidance In the Classroom, is fully described in terms of
its goals, objectives, procedures, and methods. Its results are
comprehensively discussed. Primary among these is the identification
of five instructional strategies which produce positive results: (1)
leading discussions; (2) behavioral objectives; (3) precision
teaching; (4) student tutors; and (5) evaluating students. All are
thoroughly elaborated in the appendix. A summary of the total
project, successes and failures, concludes the report. The research
reported herein was funded under Title III of the Elementary and
Secondary Education Act. (TL)

CREATIVE EDUCATIONAL LEADERSHIP
(A Partial Evaluation)

by
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May, 1970

CREATIVE LEADERSHIP VIA THE INTERMEDIATE SCHOOL DISTRICT

Improving Pupil Personnel Services

by

Daniel J. Kralik

Abstract

The major purpose for this Title III project was to demonstrate "the role and function of the new intermediate district," and to show that the intermediate school district could creatively initiate many needed changes in education within three years in Pierce County, Washington.

During the Spring of 1967, a committee of representatives from the Pierce County school districts was established. Also, the project director held several discussions with this committee to explain the pupil services section of the Title III project, and to gain the committee's support toward implementing the pupil services programs within the school districts.

The coordinator of pupil services began this position in August, 1967; and there were three projects for which he was responsible: (1) guidance training for teachers and administrators, (2) developing local pupil personnel programs, and (3) inservice training for practicing counselors. Of these three projects, numbers two and three were tried for one year and were evaluated to be ineffective toward accomplishing the project objectives and, therefore, were discontinued. The remaining project was tried for each of the three years and it was an outstanding success. The third project, Guidance in the Classroom, would represent "creative leadership" for an intermediate school district, university, private consultant firm or whomever implemented it.

Within seven weeks after accepting the position, the coordinator of pupil services met with the Pupil Services Committee to plan the implementation of the project goals. 21 people representing 10 school districts attended the first planning meeting on September 20, 1967. The group agreed to meet again on October 4 to continue planning. 15 persons representing 10 school districts attended the second meeting but only five persons had also attended the first meeting. Not only was it:

(1) extremely difficult to get the same people to leave their jobs to do the planning necessary to organize an innovative program, but

(2) it was nearly impossible to find people who were knowledgeable about changing the teaching behavior of teachers.

The Pupil Services Committee agreed that a sub-committee of five representing five school districts should plan the first year's program, and offer recommendations to the total committee. The first seven and one-half hour Saturday inservice program to change teacher behavior was held on November 18, 1967 for 10 elementary principals and 40 elementary teachers. Eight additional similar Saturday programs for the same principals and teachers were conducted that academic year.

The major conclusions we drew from the first year's program were:

1. little change occurred in the inservice participants' teaching behavior with their students.

2. little is known about: how to go about helping teachers to constructively change their teaching behavior to help students.

The first year's Guidance in the Classroom project demonstrated that a "shot-gun" approach changes behavior/little, e.g., lectures, films. demonstrations, discussion groups, tapes, literature, etc. Once this was learned, we attempt-ed to replace conventional inservice activities with programs which would constructively change teacher classroom behavior.

The emphasis of the first year's inservice learning activities seemed to be to demonstrate that the inservice program, which the committee developed, would change behavior. The emphasis for the next year was to investigate instructional tools which would change teacher behavior and, also, to study the best ways to teach these instructional tools to the inservice participants. Another important shift during the second year was to become concerned with training local change agents who would continue to conduct inservice programs after the Title III project had ended--(these people participated in the first year's inservice program and they conducted the second year's program). This shift meant being equally concerned about changing the behavior of the program consultants as well as the program participants. The second year's program (for 50 principals and teachers) included four separate instructional tools and it was conducted by four local personnel representing four different school districts, e.g., (1) second-grade teacher,(2) seventh-grade teacher, (3) elementary principal,(4) coordinator of pupil services.

The second year's program demonstrated that we were on the right track--be-havior could be changed. Now it was up to the third year to:

(1) refine the instructional tools which were found to be effective during the second year.

(2) eliminate the previous year's instructional tools which were ineffective.

(3) add new instructional tools and evaluate them.

The third year's program (for 50 principals and teachers) included six separate instructional tools and it was conducted by:

(1) 11 local school personnel representing eight different school districts, and

(2) two persons employed outside the field of education, i.e., minister, and social worker (our attempt was to develop a flexible team of change agents which represented a broad occupational background).

In addition to the previously listed team of four, the nine new consultants

were employed full-time as: (1) minister,(2) social worker,(3) first-grade
teacher,(4) sixth-grade teacher,(5) middle school teacher,(6) elementary
principal,(7) junior high counselor and (8) two elementary counselors.

Although little was learned about "the role and function of the new inter-
mediate district," a great deal was learned about instructional tools which
do and do not help teachers to improve their teaching. Also, valuable in-
formation was learned about the ways to present instructional tools to
teachers to achieve improved teaching.

CONTENTS

PROBLEM

For over 10 years, leaders in the State of Washington had encouraged the re-
organization of county school offices. It was Dr. Charles O. Fitzwater,
Chief of the Administrative Section in the U. S. Office of Education, who
said: "The state school system includes all of the administrative agencies
which a state has established for conducting its public schools. These ad-
ministrative agencies are:

'1. The state education agency, usually referred to as the state
department of education.

'2. The local school districts, which are the basic units of school
administration and responsible for operation of the public
schools.

'3. Intermediate administrative units, which function between the
local school district and the state education agency to supple-
ment and support their programs and services."

In 1965, the Washington State Legislature made it permissible for the re-
organization of county offices into intermediate districts. On April 8,
1966, the school directors of the 17 Pierce County school districts were
the first to vote in favor of becoming an intermediate district. On Jan-
uary 9, 1967, Pierce County became one of the first intermediate districts
in the state of Washington.

Most educators envisioned the intermediate district as providing services
which the under-staffed county office could not provide. While the county
office mainly provided general administrative services, i.e., preparing
budgets, registering teachers certificates, etc., the intermediate district
was expected to provide instructional services, i.e., inservice training,
curriculum development, etc.

With the hope of achieving this vision, a Title III application was written
by Intermediate District 111 (the former Pierce County School Office) for
"Creative Educational Leadership via the Intermediate District." As a
demonstration of their support for this application, the 17 school districts
in Pierce County agreed "to forego applications on their own of a major
nature."

The purpose for this Title III project was "to define the role and function
of the new intermediate district. This will involve:

'1. Identification of those necessary educational services which are
appropriate to the intermediate district,

'2. Study and experimentation seeking an effective pattern for staff-
ing an intermediate district office,

'3. Study of the 'machinery' patterns of organization and relationships
through which an intermediate district can most effectively exercise
its leadership role."

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There were seven components to the original project application:

Curriculum Development
In-service Education
Pupil Services
Cultural Enrichment
Off-Campus High School Completion Program
Parent Education
Planning for the Future

Of the above seven components, only the first four were funded. In addition to the project director, three full-time professional personnel were employed; they were:

1. Coordinator of Curriculum
2. Coordinator of Pupil Services
3. Assistant Coordinator of Pupil Services (this position later became Coordinator of Special Projects).

Although efforts were made to employ a Coordinator of Inservice Education, a qualified person was not found to take this position.

The pupil services component for this project, for which the coordinator of pupil services was responsible, included the following:

"1. There is a need for a vastly expanded staff of elementary school counselors.

'2. There is a need for an ongoing program of inservice education of present counseling staff, many members of which were drafted into counseling roles without adequate preparation."

The original written project application goes on to say that the following programs will be provided:

"1. An on-the-job training program for elementary school personnel

'2. A vigorous inservice training program for established counselors

'3. Assistance and guidance in establishing local programs.

'4. An intensive effort to provide liaison between the pupil services personnel and classroom teachers."

This, then, was the background for this Title III project "Creative Educational Leadership via the Intermediate District." Pierce County became one of the first intermediate districts in the State of Washington and, also, accepted the challenge to demonstrate through "coordination," "integration," and "leadership," "the role and function of the new intermediate district."

GOALS and OBJECTIVES:
for
"Guidance In The Classroom" Project

Original Project

The original project did not include behavioral objectives (Mager, 1962).
Project No. 9, p. 2 objectives (in the original project application) were
originally written as follows: "The basic purpose is to provide improved...
guidance services. Efforts during the first year will be directed toward
an on-the-job training program for elementary school counselors."

Year No. One--1967-68

This project's county advisory committee recommended that "improved guidance
services" would be better provided by (1) designing a program to develop "a
guidance point of view" within teachers and administrators rather than by
(2) developing "an on-the-job training program for elementary school coun-
selors." The program planners held the opinion that improving the inservice
participants' self-image would improve their:

1. teaching (improved personal relationships with students).
2. professional relationships with their:
   A. teacher colleagues.
   B. immediate administrator.

The major goal for this project for the first year was--

to help the classroom teacher develop "a guidance point of view"
by accomplishing the following objectives:

OBJECTIVE I: to affect a change in the inservice participants' attitudes,
e.g., how you feel about:(1) shy child,(2) aggressive child,(3) students,
(4) staff meetings,(5) your immediate administrator,(6) your communication
with your teaching colleagues,(7) your work,(8) your work, as you feel your
administrator feels about it,(9) your teaching colleagues' communication
with you, and(10) yourself as a person.

OBJECTIVE II: to affect a change in the attitudes of the teachers who worked
within the same elementary building as the inservice participants (within the
above 10 attitudes listed under Objective I).

OBJECTIVE III: to decrease restricted student talk during classroom dis-
cussions conducted by the inservice participants.

OBJECTIVE IV: to increase non-restricted student talk during classroom dis-
cussions conducted by the inservice participants.

OBJECTIVE V: to increase indirect teacher talk during classroom discussions
conducted by the inservice participants (indirect talk is: (A) accepts feel-
ing, (B) praises or encourages, (C) accepts or uses ideas of students, and
(D) asks questions).

OBJECTIVE VI: to decrease direct teacher talk during classroom discussions conducted by the inservice participants'(direct talk is: (A) lectures, (B) gives directions, and (C) criticizes or justifies authority).

OBJECTIVE VII: to increase the inservice participants'body of knowledge about the emotional needs of students.

OBJECTIVE VIII: to increase the inservice participants'body of knowledge about methods to individualize instruction.

OBJECTIVE IX: to increase the inservice participants'body of knowledge about ways to help students accept self.

OBJECTIVE X: to increase the inservice participants'body of knowledge about ways to communicate nonverbally.

OBJECTIVE XI: to increase the inservice participants'body of knowledge about methods to improve school communication.

Year No. Two--1968-69

As a result of learning that the previous year's program produced significant cognitive gain, but little change in classroom verbal behavior, the goal to change verbal behavior was emphasized during the second year's program. Also, how people communicate seemed to be of primary interest to counselors and other pupil personnel specialists.

The overall goal for this year's Guidance in the Classroom project was: to develop guidance behaviors within the inservice participants', during classroom discussions which they conduct, by effecting a change in their verbal interactions with their students. Following are the specific objectives:

OBJECTIVE XII: to significantly increase non-restricted (not predictable) student talk during classroom discussions conducted by the inservice participants.

OBJECTIVE XIII: to significantly decrease restricted (predictable) student talk during classroom discussions conducted by the inservice participants.

OBJECTIVE XIV: to significantly increase teacher "indirect" talk during classroom discussions conducted by the inservice participants'(indirect talk is: (A) accepts feeling,(B) praises or encourages,(C) accepts or uses ideas and (D) asks questions).

OBJECTIVE XV: to significantly decrease teacher lecturing during classroom discussions conducted by the inservice participants.

OBJECTIVE XVI: to significantly decrease teacher "direct" talk during classroom discussions conducted by the inservice participants'(direct talk is:(A) lectures,(B) gives directions and(C) criticizes or justifies authority).

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OBJECTIVE XVII: to significantly decrease student "memory-recall thinking" during classroom discussions conducted by the inservice participants'(memory-recall is: (A) seeks information, (B) gives information, (C) seeks labels, and groups, (D) gives labels and groups).

OBJECTIVE XVIII: to significantly increase student convergent and evaluative thinking during classroom discussions conducted by the inservice participants' (convergent thinking is: (A) seeks interrelationships, (B) gives inferences and generalizations ; evaluative thinking is: (A) seeks inferences and generalizations,(B) gives inferences and generalizations).

OBJECTIVE XIX: to significantly increase student "divergent thinking" during classroom discussions conducted by the inservice participants'(divergent thinking is: (A) seeks predictions and hypotheses,(B) gives predictions and hypotheses).

OBJECTIVE XX: to significantly decrease the inservice participants' "memory-recall thinking" during classroom discussions conducted by the inservice participants'(memory-recall thinking is: (A) seeks information,(B) gives information, (C) seeks labels and groups (D) gives labels and groups).

OBJECTIVE XXI: to significantly increase the inservice participants' convergent and evaluative thinking during classroom discussions conducted by the inservice participants'(convergent thinking is: (A) seeks interrelationships, (B) gives interrelationships; evaluative thinking is: (A) seeks inferences and generalizations,(B) gives inferences and generalizations).

OBJECTIVE XXII: to significantly increase the inservice participants' "divergent thinking" during classroom discussion- conducted by the inservice participants'(divergent thinking is: (A) seeks predictions and hypotheses,(B) gives predictions and hypotheses).

OBJECTIVE XXIII: to significantly increase the inservice participants' "seeking" responses during classroom discussions conducted by the inservice participants'(as opposed to their "giving" responses).

OBJECTIVE XXIV: to significantly decrease the inservice participants' "giving" responses during classroom discussions conducted by the inservice participants' (as opposed to their "seeking" responses).

Year No. Three--1969-70

During the second year's inservice program, we realized that students were "talking more" and the inservice participants were "talking less" during classroom discussions; but we asked each other: How important are such changes? What is accomplished or resolved by conducting classroom discussions?

The overall goal for this year's Guidance in the Classroom project was: to teach several instructional tools to the inservice participants,so that the tools were used in their classrooms in such a way that student performance was improved. Following are the objectives for Year No. Three:

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OBJECTIVE XXV: at least 90 percent of the 50 inservice participants lead at least five on-the-job discussions (see pp. 45 and 46 for an explanation of the discussion method).

OBJECTIVE XXVI; "relevant"[1] student verbalizations are increased during the classroom discussions conducted by the inservice participants.

OBJECTIVE XXVII: specific solutions[2] (who, does what, by when) are developed by the group during the classroom discussions conducted by the inservice participants.

OBJECTIVE XXVIII: the discussions conducted by the inservice participants result in actions[3] taken which are supported by the group and the leader.

OBJECTIVE XXIX: at least 90 percent of the 50 inservice participants write at least three behavioral objectives for their students (see pp. 66 and 67 for an explanation of the behavioral objectives method).

OBJECTIVE XXX: the three behavioral objectives which are written by the inservice participants are achieved by their students.

OBJECTIVE XXXI: at least one of the three behavioral objectives which are written by the inservice participants results in significiant[4] student achievement.

OBJECTIVE XXXII: at least 90 percent of the 50 inservice participants achieve at least three precision teaching[5] projects with their students (see pp. 60 and 61 for an explanation of the precision teaching method).

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[1] "Relevant" was defined as a complete thought verbalized in response to the discussion "opening question" (note: "opening question" is asked and often re-asked by the discussion leader. It lets the students know what question the teacher wants them to answer, i.e., "What would you like to learn about rocks?")

[2] Following is an example of a "solution" statement--"Mr. Jones (the junior high science teacher), talks to us about igneous rocks by next Friday 4/10/70."

[3] "Action" was defined as implementing (following-through) the "solutions" (see No. 2 above) which resulted from the discussion.

[4] "Significant" student achievement was contingent upon: (A) the student's past performance (baseline data), (B) the importance of the specific academic or social behavior which was pinpointed, and (C) the effort exerted by the inservice participant to help the student to achieve the goal. Significant achievement was determined by the program consultant, and based upon the evidence provided by the inservice participant during an individual interview.

[5] "Precision Teaching" was defined as a project which included:
   A. a pinpointed observable behavior (academic or social).
   B. a record (which shows how frequently the behavior occurs).
   C. consequences (the positive or negative thing which happens to the student following the behavior).
   D. discussions (talks with the student to involve him in developing A, B and C above--the idea was to provide a structure for the child to help himself--rather than to "operate upon him").

OBJECTIVE XXXIII: at least one of the precision teaching projects completed by the inservice participants results in significant[6] student achievement.

OBJECTIVE XXXIV: at least 90 percent of the 50 inservice participants train at least one student to work as a classroom tutor[7] (see pp. 68 and 69 for an explanation of the student-tutor method).

OBJECTIVE XXXV: at least one classroom tutor, who is trained by the inservice participant, tutors a learner who achieves significant[8] growth.

OBJECTIVE XXXVI: at least 90 percent of the 50 inservice participants individually evaluate at least two students using the "well dones" method[9] (see pp. 70 and 71 for an explanation of the "well dones" method).

OBJECTIVE XXXVII: a specific course of action is written (who, does what, by when) by the inservice participants for the two evaluated students to overcome at least one area for improvement for each student (see Objective XXXVI).

OBJECTIVE XXXVIII: the written courses of action are implemented (see Objective XXXVII) and each evaluated student improves his performance in at least one area for improvement.

OBJECTIVE XXXIX: to develop an instrument useful for evaluating discussions which are led using the seven-step Leading Discussions method (see pp. 47-51 for the instrument).

OBJECTIVE XXXX: to obtain baseline data regarding the seven-step Leading Discussions method (see pp. 52-57 for the data).

OBJECTIVE XXXXI: to obtain data from a non-biased source regarding the four-step Precision Teaching method (see pp. 64 and 65 for the data).

OBJECTIVE XXXXII: to investigate the attitudes of the inservice participants and the program consultants toward the six instructional tools, e.g., (1) Leading Discussions, (2) Analyzing Discussions, (3) Behavioral Objectives, (4) Precision Teaching, (5) Student-Tutors, and (6) Evaluating Students and, also, the attitudes of both groups toward: (1) the total Practicum (the total inservice instructional program), and (2) Education courses in general.

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[6] Same as footnote number 4 above.

[7] "Training" a student to work as a student-tutor included:
 A. writing a behavioral objective for the learner.
 B. writing a behavioral objective for the tutor.
 C. writing and carrying through an instructional program for the tutor, so that the tutor achieved the skills identified as necessary to teach the learner.

[8] Same as footnote number 4 above.

[9] The "well dones" method includes three parts:
 A. listing the student's strengths.
 B. listing the student's areas for improvement.
 C. writing a course of action (who, does what, by when) to overcome at least one of the written areas for improvement.

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PROCEDURES AND METHODS
for
"Guidance In The Classroom" Project

Year No. One--1967-68

Procedure

Nine Saturday meetings (8:30 a.m.-5:00 p.m.) were conducted for 10 elementary principals and 40 elementary teachers. 10 school districts sent one elementary principal, and the principal brought four of his teachers to participate in the inservice program. The method to select the inservice participants seemed to be different for each district. Some participants were chosen because they "needed it," others because they could "add to the inservice program," and some because they were "next in line" for a professional growth opportunity. The participants averaged 11.6 years of teaching experience and were about equally divided between males and females. Each participant received a $270.00 stipend. $180.00 was paid by Title III funds and $90.00 was paid by the school district. 45 participants enrolled for five quarter credits at a total cost of $50.00 to the participant. All participants continued with the entire program. The instructional activities represented a "shotgun" approach--exposing the inservice participants to a variety of experiences, hoping that something would cause them to change. The topic and the instructional program was different for each meeting. The instructional program included: 15 resource persons, five films, eight tape recordings, written literature and four books, discussion groups, lectures, nonverbal exercises, teaching demonstrations, a panel discussion, and achievement, interest and personality testing, (Otis Quick Scoring I.Q. Test, Strong Vocational Interest Blank, Personality Orientation Inventory).

A. Following are the specific procedures which were implemented to accomplish Objectives I and II (see p. 3 for the objectives):

1. Personality, achievement and interest testing (Personality Orientation Inventory, Otis Quick Scoring I.Q. Test, Strong Vocational Interest Blank).

2. Listened to and discussed eight tape recordings by Arthur Combs, Ernest Melby, Ralph Nichols, Carl Rogers, Murray Banks and Donald Hamacheck.

3. Six personal letters were read by the consultant (the letters explained how several individuals went about accepting and improving themselves), and small group discussion followed the reading of each letter.

4. Two psychologists gave lectures, conducted small group discussions, and conducted nonverbal exercises with the inservice participants.

5. Viewed and discussed four films: "More Than Words" and "Three Approaches to Psychotherapy."

6. Inservice participant teams traveled together by car to attend

the inservice meetings (the teams included the elementary principal and four teachers).

B. Following are the specific procedures which were implemented to accomplish Objectives III through VI (see pp. 3 and 4 for the objectives):

1. Three teaching demonstrations and two demonstration discussions were held with kindergarten, second and sixth-grade students.

2. Small group discussions were held throughout the inservice program.

3. A demonstration discussion was conducted with a fourth-grade student and his parents, a teacher, counselor and a principal.

4. Viewed and discussed four films: "More Than Words" and "Three Approaches to Psychotherapy."

5. Four consultants from business conducted a communications program.

C. In addition to the procedures listed under A and B above, which were also thought to be helpful toward accomplishing Objectives VII through XI, the following specific procedures were implemented to accomplish Objectives VII through XI (see p. 4 for the objectives):

1. Written materials were duplicated and distributed to the inservice participants.

2. Four books were purchased and loaned to the inservice participants.

Method

In order to examine the effectiveness of the procedures implemented to accomplish Objectives I and II, the inservice participants completed a pretest--posttest semantic differential measuring 10 attitudes (see Objective 1, p. 3). A comparision group of volunteers also completed a pretest--posttest semantic differential. The volunteer group included: (1) the teachers who taught in the same building as the 50 inservice participants, and (2) seven additional elementary principals volunteersd themselves and their teachers, and they completed a pretest--posttest semantic differential.

In order to examine the effectiveness of the procedures implemented to accomplish Objectives III through VI (sse pp. 3 and 4 for the objectives), each inservice participant tape recorded a pretest--posttest classroom discussion which they conducted with their students. 20 pretest and 20 posttest tape recordings were selected at random and mailed to Project 180[10] (a non-biased evaluation agency) to complete Flanders' Interaction Analysis.

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[10] Project 180 reports .90 reliability between the judges who scored the tape recordings.

In order to examine the effectiveness of the procedures implemented to accomplish Objectives VII through XI (see p. 4 for the objectives), the inservice participants completed a pretest--posttest "homemade" achievement test. The inservice participants wrote answers to the five following educational concerns:

1. The emotional needs of students
2. Methods to individualize instruction
3. Ways to help students accept self
4. Ways to communicate nonverbally
5. Methods to improve school communication

Three judges from the University of Washington Guidance Department independently scored the tests. A response was defined as acceptable if all three of the judges marked the answer as correct.

Year No. Two--1968-69

Procedure

10 Saturday meetings (8:30 a.m.-3:30 p.m.) were conducted for 55: elementary principals and teachers, a social worker, a junior college teacher and a middle school teacher. A $50.00 Title III stipend was paid to the participants. Flyers were sent to schools and participants enrolled at random similar to a college course. 50 participants enrolled for six quarter credits at a total cost of $60.00 to the participant. About five persons dropped the program for various reasons, i.e., illness in the family, boredom with the program, etc. The instructional program included the four following instructional tools (none of which were included in the first year's program):

1. Leading Discussions
2. Interaction Analysis
3. Content Analysis
4. Precision Teaching

The instructional methods for teaching Leading Discussions and Interaction Analysis included:

1. A lecture to introduce the tool
2. A demonstration--showing the instructional tool in action
3. Practice for the inservice participants--developing the skills to use the instructional tools back in their classrooms
4. Feedback evaluation to the participants--insofar as how they were doing in using the instructional tools back in their classrooms

Content Analysis and Precision Teaching were introduced to the inservice participants with a lecture. One film and four tape recordings about Interaction Analysis were used because these materials applied directly to the instructional skills being developed. The instructional staff included four local school personnel and one "outside" resource person who introduced the Leading Discussions program.

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A. Following are the specific procedures which were implemented to accomplish Objectives XII through XVI (see p. 4 for the objectives):

1. A seven-step method entitled "Leading Discussions" (see pp. 45 and 46 for an explanation of the discussion method).
2. A method to analyze verbal behavior entitled "Flanders Interaction Analysis" (see p. 72 for the Flanders Interaction Analysis categories).

B. The specific procedure which was implemented to accomplish Objectives XVII through XXIV (see p. 5 for the objectives) was a method entitled "Content Analysis" (see pp. 73-75 for an explanation of Content Analysis).

Method

During the last week of the inservice program, the 50 inservice participants conducted a discussion with their students, tape recorded it, and submitted it for Flanders Interaction Analysis and Content Analysis (see pp. 72-75).

Each of the inservice participants asked a teacher colleague to conduct a discussion with her students, to tape record the discussion, and submit it for analysis--the "teacher colleagues" became the comparision group. Both analyses were conducted by Project 180[11] (a nonbiased evaluation agency).

Year No. Three--1969-70

Procedure

20 Thursday evening sessions (6:30 p.m.-9:30 p.m.) were conducted for 55 participants who included: (1) elementary principals, (2) elementary and secondary teachers, (3) counselors, (4) teacher aide, (5) reading improvement teacher, (6) speech therapist, (7) librarian, (8) minister, (9) substitute teacher, and (10) housewife.

Flyers were sent to schools and participants enrolled at random similar to a college course. Stipends were not paid to the participants but each participant paid a $72.00 enrollment fee for six quarter credits. About five persons dropped out of the program because of: (1) its one-half year length, and (2) the voluminous on-the-job change required on the part of the inservice participants, etc.

The inservice program included the six following instructional tools: (1) Leading Discussions, (2) Analyzing Discussions, (3) Precision Teaching, (4) Behavioral Objectives, (5) Student-Tutors, and (6) Evaluating Students.

The first three above instructional tools were included in the previous year's program, but they were much more organized this year. The remaining three instructional tools were new for this Title III project. The instructional method

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[11]Project 180 reports .90 judge reliability conducting Flanders' Interaction Analysis and .80 judge reliability conducting Content Analysis.

for teaching the six instructional tools included:

1. a presentation to introduce the tool,
2. a demonstration--showing the instructional tool in action,
3. practice for the inservice participants--developing the skills to use the instructional tools back in their classrooms,
4. feedback evaluation to the participants--insofar as how they were doing in using the instructional tools back in their classrooms.

The instructional staff included 11 local school personnel, a local minister and social worker, and no "outside" resource people. One tape recording was used during the Analyzing Discussions program, and one filmstrip was used to introduce Behavioral Objectives (Instructional materials were used only when they specifically applied to the instructional tool being taught).

A. Following is the specific procedure which was implemented to accomplish Objectives XXV through XXVIII (see p. 6 for the objectives):

A seven-step method entitled "Leading Discussions" (see pp. 45 and 46 for an explanation of the discussion method).

B. Following is the specific procedure which was implemented to accomplish Objectives XXIX through XXXI (see 5 and 6 for the objectives):

A three-step method entitled "Behavioral Objectives" (see pp. 66 and 67 for an explanation of the behavioral objectives method).

C. Following is the specific procedure which was implemented to accomplish Objectives XXXII and XXXIII (see pp. 6 and 7 for the objectives).

A four-step method entitled "Precision Teaching" (see pp. 60 and 61 for an explanation of the precision teaching method).

D. Following is the specific procedure which was implemented to accomplish Objectives XXXIV and XXXV (see p. 7 for the objectives):

A method entitled "Student-Tutors" (see pp. 68 and 69 for an explanation of the student-tutor method).

E. Following is the specific procedure which was implemented to accomplish Objectives XXXVI through XXXVIII (see p. 7 for the objectives):

A three-step method entitled "Evaluating Students" (see pp. 70 and 71 for an explanation of the evaluating students method).

F. Following are the procedures which were implemented to accomplish Objectives XXXIX and XXXX (see p. 7 for the objectives).

1. The program consultants prepared a list of variables to be observed during discussions.

2. A pair of evaluators revised the above list of variables (the re-

vised variables became the instrument), and trained nine graduate students to use the evaluative instrument while observing discussions.

3. The above nine graduate students observed 16 discussions and analyzed the discussions using the above evaluative instrument.

4. The data generated from observing and analyzing the 16 discussions were analyzed by a nonbiased team of evaluators.

G. Following are the procedures which were implemented to accomplish Objective XXXXI:

1. The project coordinator prepared a list of questions to be asked of the inservice participants.

2. A sociology student was given interview training to develop her interviewing skills.

3. The above sociology student used the above questionnaire and conducted interviews with 14 elementary teachers, two elementary principals, and an elementary counselor.

4. The data which were generated from the above interviews were analyzed by the sociology student.

Method

In order to examine the effectiveness of the procedures implemented to accomplish Objectives XXV through XXXVIII (see pp. 6 and 7 for the objectives), three structured interviews were held by the program consultants with each of the inservice participants. The program consultants analyzed the data which were provided by the inservice participants during individual interviews. Each interview lasted about 60 minutes and the kinds of evidence provided by the inservice participants included: (1) written papers completed by students, (2) graphs of student performance, (3) testing results, (4) tape recordings, (5) charts and other recording forms, etc.

In order to examine the effectiveness of the procedures implemented to accomplish Objectives XXXIX and XXXX (see p. 7 for the objectives), between February 16 and March 12, 1970, nine trained judges observed, tape recorded and analyzed 16 discussions (see pp.45 &46 for an explanation of the discussion method). Two discussions were led by eighth-grade students with their peers and the remaining 14 discussions were led by the program consultants. Each discussion was analyzed by the observers to determine such variables as: (1) number who participate, (2) kind of participation (relevant--irrelevant, (3) number of times leader facilitates as opposed to discourages communication, etc. (See Table I pp.49-51). The tape recordings are used to (1) score variables which were not scored during the observation, and/or (2) check the reliability of the observer's data from the observation. Eight of the nine graduate student observers each observed two discussions, and wrote a brief comparison of the two discussions (six of the eight observers observed the same leader lead both

discussions). The ninth observer co-observed a discussion so observer reliability could be checked. The observed discussions lasted about 30 minutes and were held with discussion groups from first-grade to teachers and numbered from 27 to six participants. After each discussion, the discussion participants responded to an affective measure concerning discussions (see affective measures, pp.55-57). Following the observations, the observers wrote a summary of their impressions.

In order to examine the effectiveness of the procedures implemented to accomplish Objective XXXXI (see p. 7 for the objectives), a precision teaching interview questionnaire was written and 16 school personnel were interviewed (see pp.62&63 for the precision teaching interview instrument). Interviews were conducted in two elementary schools because these were the only buildings which included the principal and at least four teachers in the inservice training program--it also substantially reduced traveling for the interviewer; while a relatively large sample was maintained.

On March 4, 1970, an undergraduate sociology major interviewed six teachers, the counselor and the principal in one elementary school, and on March 10, 1970 eight teachers and the principal in another elementary school. Each interviewee was told that the data would be reported anonymously. Interviews lasted between 15 to 30 minutes for each individual. The interviewer asked each question and wrote the responses given by the interviewee. At the end of the interview, the interviewee was asked to read the written responses and to suggest additions or corrections. Following these interviews, the interviewer wrote a report of her findings and, also, she wrote recommendations and included a summary of her impressions.

In order to examine Objective XXXXII, a semantic differential test was completed by 49 inservice participants and 12 program consultants at the conclusion of the inservice training program.

RESULTS:
for
"Guidance in the Classroom" Project

As a result of the above objectives and procedures, the following results occurred:

Year No. One--1967-68

1. Regarding OBJECTIVE I; and using a semantic differential to evaluate the 10 attitudes, and treated by t-test of the significance of the difference between the means, there were no significant differences between the inservice participants and the comparison group.

2. Regarding OBJECTIVE II; and using a semantic differential to evaluate the 10 attitudes, and treated by t-test of the significance of the difference between the means, there were no significant differences between the inservice participants and the teachers who worked within the same elementary building as the inservice participants .

3. Regarding OBJECTIVE III; and using Flanders' Interaction Analysis to evaluate restricted student talk during classroom discussions, t-test showed no significant difference between the inservice participants and the comparision group.

4. Regarding OBJECTIVE IV; and using Flanders' Interaction Analysis to evaluate "nonrestricted" student talk during classroom discussions, t-test showed no significant difference between the inservice participants and the comparison group.

5. Regarding OBJECTIVE V; and using Flanders' Interaction Analysis to evaluate "indirect" teacher talk during classroom discussions, t-test showed no significant difference between the inservice participants and the comparison group.

6. Regarding OBJECTIVE VI; and using Flanders' Interaction Analysis to evaluate "direct" teacher talk during classroom discussions, t-test showed no significant difference between the inservice participants and the comparison group.

7. Regarding OBJECTIVE VII; and using a "homemade" achievement test to evaluate the inservice participants' pretest-posttest body of knowledge about "the emotional needs of students," analysis of variance showed that the gain was statistically significant at $P < .05$ ($F=1.7215$).

8. Regarding OBJECTIVE VIII; and using a "homemade" achievement test to evaluate the inservice participants' pretest-posttest body of knowledge about "methods to individualize instruction," analysis of variance showed that the gain was statistically significant at $P < .05$ ($F=1.6095$).

9. Regarding OBJECTIVE IX; and using a "homemade" achievement test to evaluate the inservice participants' pretest-posttest body of knowledge about "ways to help students accept self," analysis of variance showed that the gain was

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statistically significant at P<.01 (F=3.2013).

Regarding OBJECTIVE X; and using a "homemade" achievement test to evaluate inservice participants' pretest-posttest body of knowledge about "ways to communicate nonverbally," analysis of variance showed that the gain was statistically significant at P<.05 (F=1.6668).

11. Regarding OBJECTIVE XI; and using a "homemade" achievement test to evaluate the inservice participants' pretest-posttest body of knowledge about "methods to improve school communication," analysis of variance showed that the gain was not statistically significant (F=1.347).

Year No. Two--1968-69

12. Regarding OBJECTIVE XII; and using Flanders' Interaction Analysis to evaluate "nonrestricted" student talk during classroom discussions, t-test showed that nonrestricted student talk was statistically higher (P<.01, t=3.14) with the students of the inservice participants than with the students of the comparison group.

13. Regarding OBJECTIVE XIII; and using Flanders' Interaction Analysis to evaluate "restricted"student talk during classroom discussions, t-test showed that restricted student talk was statistically lower (P<.01, t=3.69) with the students of the inservice participants than with the students of the comparison group.

14. Regarding OBJECTIVE XIV; and using Flanders' Interaction Analysis to evaluate "indirect" teacher talk during classroom discussions, t-test showed no significant difference (t=1.67) between the inservice participants and the comparison group.

15. Regarding OBJECTIVE XV; and using Flanders' Interaction Analysis to evaluate teacher "lecturing" during classroom discussions, t-test showed that teacher lecturing was statistically lower (P<.01, t=3.23) with the inservice participants than with the comparison group.

16. Regarding OBJECTIVE XVI; and using Flanders' Interaction Analysis to evaluate teacher "direct" talk during classroom discussions, t-test showed that teacher direct talk was statistically lower (P<.01, t=3.27) with the inservice participants than with the comparison group.

17. Regarding OBJECTIVE XVII; and using Content Analysis to evaluate student "memory-recall" thinking during classroom discussions, t-test showed no significant difference (t=.07) between the students of the inservice participants and the students of the comparison group.

18. Regarding OBJECTIVE XVIII; and using Content Analysis to evaluate student "convergent" and "evaluative" thinking during classroom discussions, t-test showed no significant difference (t=.56) between the students of the inservice participants and the students of the comparison group.

19. Regarding OBJECTIVE XIX; and using Content Analysis to evaluate student "divergent" thinking during classroom discussions, t-test showed no significant difference (t=.56) between the students of the inservice participants and the students of the comparison group.

20. Regarding OBJECTIVE XX; and using Content Analysis to evaluate teacher "memory-recall" thinking during classroom discussions, t-test showed that teacher memory-recall thinking was statistically lower (P<.01,t=3.55) with the inservice participants than with the comparison group.

21. Regarding OBJECTIVE XXI; and using Content Analysis to evaluate teacher "convergent" and "evaluative" thinking during classroom discussions, t-test showed no significant difference (t=0.0) between the inservice participants and the comparison group.

22. Regarding OBJECTIVE XXII; and using Content Analysis to evaluate teacher "divergent" thinking during classroom discussions, t-test showed no significant difference (t=.65) between the inservice participants and the comparison group.

23. Regarding OBJECTIVE XXIII; and using Content Analysis to evaluate teacher "seeking" responses during classroom discussions, t-test showed that teacher seeking responses were statistically higher (P<.05, t=2.33) with the inservice participants than with the comparison group.

24. Regarding OBJECTIVE XXIV; and using Content Analysis to evaluate teacher "giving" responses during classroom discussions, t-test showed that teacher giving responses were statistically lower (P<.05, t=2.12) with the inservice participants than with the comparison group.

Year No. Three-1969-70

25. Regarding OBJECTIVE XXV; and using a structured interview for the inservice participants to demonstrate evidence about the number of classroom discussions which they held, 50 of the 50 inservice participants accomplished this objective (9.3 was the average number of discussions which were led and the range was 7 to 22). See pp.45 & 46 for five examples of discussions which were led while using the methods taught during the inservice program.

26. Regarding OBJECTIVE XXVI; although data are not available in regard to "relevant" student talk during the inservice participants' classroom discussions, data are available for the two student-led and the 14 consultant-led discussions which were observed by the trained judges:

   A. 63.556 per cent of the students expressed at least one "relevant" idea during the first observation (range: minimum 39 percent and maximum 100 per cent)

   B. 74.5 percent of the students expressed at least one "relevant" idea during the second observation (range: minimum 55 percent and maximum 100 percent)

27. Regarding OBJECTIVE XXVII; and using a structured interview for the inservice participants to demonstrate evidence about the specific solutions which resulted from classroom discussions, approximately two-thirds of the over than 450 discussions led resulted in solutions developed by the students during the discussions.

28. Regarding OBJECTIVES XXVIII; and using a structured interview for the inservice participants to demonstrate evidence about the action which was taken as a result of the discussions, approximately 225 discussions resulted in implemented action (the students and teachers did what they said they would do).

No data are available as to whether the actions were supported by the students and the teacher. One might assume that the action would tend to be "supported" if it is implemented. However, an affective measure was completed by the students who participated in the discussions observed by the trained judges and they rated discussions very positively (see pp. 55-57 for the results from the affective instruments).

29. Regarding OBJECTIVE XXIX; and using a structured interview for the inservice participants to demonstrate evidence about the number of behavioral objectives which they wrote, 49 of the 50 inservice participants (98 percent) accomplished this objective. See pp. 66 & 67 for five examples of behavioral objectives projects which were completed while using the methods taught during the inservice program.

30. Regarding OBJECTIVE XXX; and using a structured interview for the inservice participants to demonstrate evidence about their students' achievement, the three written behavioral objectives were achieved. (In some cases the target date to accomplish the objective had to be changed).

31. Regarding OBJECTIVE XXXI; and using a structured interview for the inservice participants to demonstrate evidence about their students' significant achievement, 50 of the 50 inservice participants accomplished this objective.

32. Regarding OBJECTIVE XXXII; and using a structured interview for the inservice participants to demonstrate evidence about the number of precision teaching projects which they completed, 47 of the 50 inservice participants (94 percent) accomplished this objective. See pp. 60 & 61 for five examples of precision teaching projects which were completed using the methods taught during the inservice training program.

33. Regarding OBJECTIVE XXXIII; and using a structured interview for the inservice participants to demonstrate evidence about their students' significant achievement, 47 of the 50 inservice participants (94 percent) accomplished this objective.

34. Regarding OBJECTIVE XXXIV; and using a structured interview for the inservice participants to demonstrate evidence about the number of student-tutors they trained, 48 of the 50 inservice participants (96 percent) accomplished this objective. See pp. 68 & 69 for four examples of student-tutor projects which were completed using the methods taught during the inservice training program.

35. Regarding OBJECTIVE XXXV; and using a structured interview for the in-service participants to demonstrate evidence about the learner's significant achievement, 44 of the 50 inservice participants (88 percent) accomplished this objective.

36. Regarding OBJECTIVE XXXVI; and using a structured interview for the in-service participants to demonstrate evidence about the number of "well dones" evaluations which they conducted, 46 of the 50 inservice participants (92 percent) accomplished this objective. See pp.70 & 71.for five examples of evaluations which were conducted using the methods taught during the inservice training program.

37. Regarding OBJECTIVE XXXVII; and using a structured interview for the in-service participants to demonstrate evidence about the number of evaluations which resulted in a written course of action, 46 of the 50 inservice participants (92 percent) accomplished this objective.

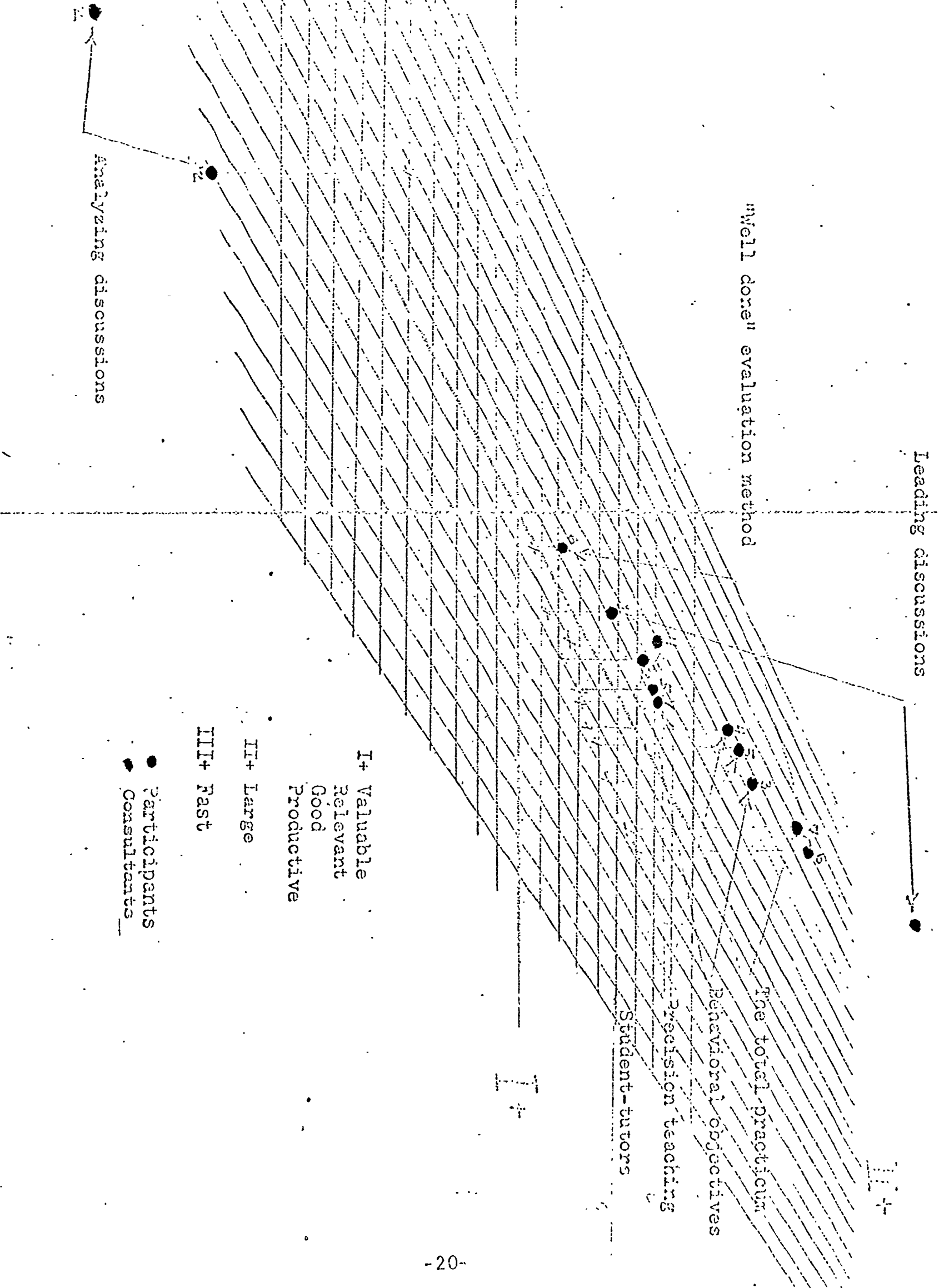38. Regarding OBJECTIVE XXXVIII; and using a structured interview for the in-service participants to demonstrate evidence about the number of evaluated students who improved their classroom performance, 46 of the 50 inservice participants (92 percent) accomplished this objective.

39. Regarding OBJECTIVE XXXIX; Table I (pp.49-51) is the instrument which was developed for evaluating seven-step discussions.[12]

40. Regarding OBJECTIVE XXXX; Tables II, III, IV, and V, (pp. 52-57) provide these data.

41. Regarding OBJECTIVE XXXXI; Table VII (pp.64 & 65)provides these data.

42. Regarding OBJECTIVE XXXXII; the graph on the following page represents the attitudes of the inservice participants and the program consultants toward the eight concepts measured by the semantic differential. It should be noted that the more positive the attitude, the higher and to the right it is located on the graph, i.e., consultant attitudes toward "leading discussions;" the more negative an attitude, the lower and to the left is its location on the graph, i.e., consultant attitudes toward "education courses in general.

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[12]Variables I, II-b, and II-c, will be revised or eliminated, but the remaining variables provided data which are useful for evaluating classroom discussions.

How you evaluate education courses in general?

Analyzing discussions

Leading discussions

"Well done" evaluation method

The total practicum

Behavioral objectives

Precision teaching

Student-tutors

II +

I +

III +

I+ Valuable
   Relevant
   Good
   Productive

II+ Large

III+ Fast

● Participants
● Consultants

Factor Scores

The factor scores for consultants and participants appear below:

Consultants			Concept Number	Participants		
Factor I	Factor II	Factor III		Factor I	Factor II	Factor III
-.96	-1.50	-1.48	1	-.30	-.27	-.39
1.07	1.52	1.50	2	.70	1.06	1.16
-.62	- .95	- .89	3	-.37	-.46	-.48
.23	- .49	- .51	4	-.52	-.68	-.83
-.39	- .60	- .70	5	-.51	-.75	-.83
-.75	-1.2	-1.0	6	-.07	-.14	-.18
-.74	-1.1	-1.1	7	-.41	-.65	-.47
2.37	3.04	3.26	8	1.48	1.89	2.02

The data above are in z-score units with means equal to zero and standard deviations equal to 1.0. Negative values are perceived favorably whereas those without a sign (positive) are seen as negative. The larger the value, negative or positive, the stronger the response.

SUBJECTIVE DATA

Year No. One--1967-68

1. 48 of the 50 participants completed an anonymous evaluation at the end of the program. Participants were asked to rate the program along a seven-point scale. Following are the results:

Deeply meaningful positive experience	Constructive in its results	More helpful than unhelpful	Neutral
33 (69%)	13 (27%)	2 (4%)	0

Mostly frustrating annoying or confusing	More unhelpful than helpful	Mostly damaging
0	0	0

2. The participants were also asked: "with ONE word" describe this workshop--

Alive...Great...Good...Positive...Good, worthwhile...Fair...Helpful...Excellent... Beneficial...Worthwhile...Uplifting...Interesting...Good...Great...Meaningful... Beneficial...Helpful...Stimulating...Exciting...Colossal...Great...Yahoo... Awareness...Practical...Stimulating...Excellent...Fine...Great...Marvelous... Tremendous...Stimulating...Enriching...Penetrating...Terrific...Stupendous... Excellent...Inspiring...Moving...Tremendous...Meaningful...Awareness...Inspiring...Meaningful...Constructive...Self actualizer...Stimulating...Great...

3. The workshop participants anonymously rated each meeting, using the criteria: below average, average and above average. Following are the total ratings:

	Below Average	Average	Above Average
Mean	5%	29%	66%
Range	0% - 20%	0% - 68%	24% - 100%

4. On a semantic differential, the participants' rated the instructional program more positively than each of the 10 attitudes listed under Objective I above p. 3.

5. Ten workshop participants responded in writing to the following question:

"If you are willing to be quoted, would you briefly relate a recent experience which shows a change in how you work with people - a change which you believe is a result of your involvement within this workshop."

Following are some of the written responses:

1. "I have changed my teaching methods in an experimental class so as to individualize my teaching. Keeping in close contact with each eighth grader and guiding and serving as resource person rather than lecturer and assign-

ment giver has been a great experience. I have followed this class's feelings closely with attitude surveys which indicate real growth on their part as well as mine!"

Bonita Boyce
7-8th. Grade Social Studies

2. "Recently I was able to tell a very exasperating teenager that she was a 'special' student to me in spite of her unacceptable behavior. The workshop had helped me realize that she was one of the rare people whose future contributions should outweigh any effort and understanding necessary at this point in her life."

Kenneth O. Browning
Principal

3. "I believe my reading program has improved because of this workshop--I listen more--talk less, smile more and have tried to let each child know that I like him and have confidence in him."

Vivian Bennett
Remedial Reading

4. "I have become aware of shy, introverted children much, much more. I ask the shy--Barbara in particular, her opinion, what do you think, Barbara? and this sort of thing. I published a creative story she wrote in an English assignment with the school newspaper. I pat her on the back, praise when and where I can. My happiest day of school this year came the other day when Barbara brought me some flowers and said in her quiet way, 'Mr. German, I like you!."

Ernest L. German
6th. Grade Teacher

5. "Counseling with students in my office I find that I have become a better listener. When questioning children I now try to understand the feeling of the child; I try to find out from them the real reason for their problem rather than punishing them just because they have done something they shouldn't have been doing. Even though after listening to the explanation certain disciplinary measures may still be inflicted."

O. Johnson
Principal

6. "Two sixth grade boys brought in a 2-1/2 foot garden snake to show our children who were curious, but kept their distance. Donald ran and hid his face against me, screaming 'get that thing out of here.' I just held on to him. The boy holding the snake brought it over to where I was and the other children came closer to watch as the boy showed how it coiled around his arm. I said if the boy would hold it, I would touch it and then the other children could touch it too, just to see how it felt. Donald had gradually turned around to watch but was still **holding** on to me. As I reached to touch the snake he screamed and grabbed my arm back, apparently genuinely alarmed for my safety. I suggested that he hold my arm as I touched the snake, and if anything happened he could pull it back. I touched the snake, and the first time he brought my arm back

right away, but the second time he touched it himself. As the other children ventured touches, Donald tried first one finger, then his whole right hand, but his left was still gripping my arm. The boy backed away a little, and Donald moved away from me toward the boy, and after about three minutes asked if he could hold it himself. The boy showed him how to hold it by the neck so it couldn't bite, but Donald held it down quite a bit from the head. He held it for several seconds until the boy teased the snake's head around to Donald's arm. As the snake's tongue pricked his arm Donald jumped and almost dropped the snake. The boy took it back. Donald came over to me and asked me to pick him up. I did, and told him I liked the way he handled the snake. He laughed and hugged me...But without the constant reinforcement by the attitudes presented in this course, I'm not sure I would have stuck it out."

<div align="right">
Janice G. Abbott
Teacher-Special Ed.
</div>

FOLLOW-UP EVALUATION

One year after the end of the inservice program, a one page follow-up question-naire was forwarded to each of the 50 inservice participants. Each participant was asked to:

1. Complete the questionnaire, and
2. Conduct a classroom discussion, tape record it, and
   forward the tape recording to us for interaction analysis.

RESULTS

1. 20 of the 50 inservice participants (40 percent) completed and returned the questionnaire.
2. Six of the 39 participants (15 percent) sent the requested tape recording (11 of the previous year's participants were requested to not send a tape recording because they were also participating in the second year's in-service program).

How would you rate last year's workshop:

Deeply meaningful positive experience	Constructive in its results	More helpful than unhelpful	Neutral
9 (45%)	6 (30%)	3 (15%)	2 (10%)

Mostly frustrating annoying or confusing	More unhelpful than helpful	Mostly damaging
0	0	0

Year No. Two--1968-69

1. 49 of the 50 participants completed an anonymous evaluation at the end of the inservice program. Participants were asked to rate the program along a seven-point scale. Following are the results:

Deeply meaningful positive experience	Constructive in its results	More helpful than unhelpful	Neutral
26 (53%)	15 (31%)	8 (16%)	0

Mostly frustrating annoying or confusing	More unhelpful than helpful	Mostly damaging
0	0	0

2. The participants were asked: "with ONE word" describe this workshop--

Thought-provoking...Encouraging...Thought provoking...Needed...Overwhelming... Mediocre...Overwhelming...Discourage...Classic...Worthwhile...Useful...Helpful... Purposeful...Good...Confusing...Good...Useful...Marvelous...**Positive**...Excellent...Constructive...Vital...Provocative...Interesting...Miraculous...Great... Transforming...Outstanding...Survival...Inspiring...Helpful...Challenging... Practical...More...Satisfying...Great...Great...Moving...Educational...Practical...Rewarding...Challenging...Magnificent...Outstanding...Awakening.

3. The inservice participants were also asked: Give the single most significant SPECIFIC change or improvement which you have made in your instructional program THIS YEAR? Following are some of their responses:

Accepting feelings...Improved ability in leading group discussions...More conscious of accepting feeling...To listen...Allowing children more freedom...Working toward leading better discussions, more planning...Involving students...Increase in student participation in class planning...Being able to lead a discussion...Allowed students more freedom of discussion...Give each child time for expression and listening...Changed my type of questions to stimulate better thinking...Getting pupils to interact...Asked more meaningful questions...Become democratic teacher...Better questions...Consideration of the person of the student as a listener...Using pupil's ideas in planning...Accepting student feelings more...More child oriented...Everyone solves the problem through discussion...

Year No. Three--1969-70

1. 48 of the 50 inservice participants completed an anonymous evaluation at the end of the inservice program. Participants were asked:

Using the following scale, and in terms of helping you with your professional work, how do you rate the material and experiences of this Practicum?

```
      /   /   /   /   /   /   /   /   /   /
    10   9   8   7   6   5   4   3   2   1

  Magnificent       Very      Good      Poor      Very
                 Outstanding                      Poor
```
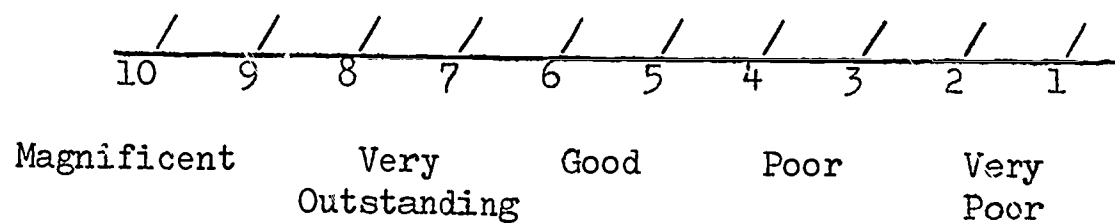
THE RESULTS WERE:

A. No one rated the program lower than No. "5"

B. 19% rated the program as "good"
   (1) Two of the 48 participants (4%) rated it No. "5" and
   (2) Seven of the 48 participants (15%) rated it No. "6"

C. 51% rated the program as "very outstanding":
   (1) Six of the 48 participants (12%) rated it No. "7" while
   (2) 19 of the 48 participants (39%) rated it No. "8"

D. 30% rated the program as "magnificent":
   (1) Seven of the 48 participants (15%) rated it No. "9" and
   (2) Seven of the 48 participants (15%) rated it No. "10"

2. The inservice participants were also asked: What major changes have occurred within you as a result of the Practicum? Following are some of the written responses:

"Behavioral Objectives showed me clarity of purpose that I had never had before...
(1) anxiety level has decreased about 50%, (2) gained a great deal of confidence--
I can see where I am going, (3) I feel I know myself and my family better as a
result of using discussions, precision teaching and evaluations, (4) before I
began this year I knew what I wanted to be and I'm there. My classes are reach-
ing the objectives I set and they set--I don't experience behavioral difficulties
among the children and--I truly enjoy teaching as a result...(1) I have tools to
use to evaluate myself, (2) I found ways of helping my kids be responsible for
their behavior, (3) I am more involved with my kids, (4) I have more confidence
in my ability to try new methods and succeed and go back and evaluate myself if
I fail (and try again)...Discussion Leadership has helped me to try and get
students to contribute their ideas more. I see that I need to be more specific
in writing objectives and following thru. The Practicum has led me to examine
my methods and analyze why I do the things I do. I believe that I have been in-
consistent when I thought the opposite...I am gaining in skill in Leading Dis-
cussions--I make goals clear to students. It's easier to motivate them...Much
of the frustration has been removed which was caused by poor management in my
classroom. The students have a much better chance to grasp my teaching, which
gives me a feeling of achievement...I have a renewed enthusiasm for teaching.
I am more inclined to ask for evaluations from the children and to let them do
more on their own...More realistic attitude toward work and life--better able
to communicate with fellow workers, students and family...Have become more certain
how to insure that my students are acquiring the necessary skills such as
arithmetic and reading, and English. I have separated the skills and concen-
trated them and left my students more time to pursue ideas and interests...I
have been "counting" more as motivation. I have been writing kids ideas (names)
on board and paper rather constantly as motivator...Confidence in my ability to
lead others in principals' association and my school--Confidence in my ability
to conduct positive evaluations with others. I have taken a more confident and
active part in working directly with teachers in their classrooms. I have been
a bigger help to them...Felt more pleased with discussions in the classroom.
They now have organization and result in action that can be measured. Children

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seem more enthusiastic about learning when goals are definite. I have found new ways to meet behavioral problems with excellent results in getting rid of them in a short time. I have become a better teacher!...I know more adequate ways to do my job than I knew before. Also, though I am not sure this is the function of an academic course, I must admit that I feel that the problem of more adequately coping with my family responsibilities seems much less over- whelming if I use these methods...I am more confident of myself in getting before groups and talking. I am more knowledgeable in methods of evaluating myself and others. I am enthused and want to show these methods to others... (1) a sense of direction to pursue (i.e., Behavioral Objectives), (2) A willingness to accept Student-Tutors and allow a little noise within the class- toom (i.e., more freedom)...I am much more oriented toward achieving action from those with whom I work, and much better equipped to get it...I've become much better organized in planning and in letting students know what is to be ex- pected from them...Learned how to pinpoint and follow through with Precision Teaching...Can now conduct any type of discussion meeting more confidently and more successfully...I can respond with variety and make my teaching seem fresh... I have discovered a new way to let the children open up (Discussion Leadership), and give their ideas and work from there because that's what you're trying to do. I have felt a higher sense of accomplishment as a teacher, as I know better where gains were made by the students, and how much gain in precision teach- ing. I was able to reach all 35 in my room by these techniques, and easily the children learned from their mistakes to improve their own achievement. My student-tutor was successful with a student who was totally confused before about phonics. I didn't have the time to daily sit down with her but I could organize it so she still could get help...I can see the importance of thorough record keeping and follow-up. One big change is my attitude toward 'problem kids--or kids with pro and cons.' I'm trying to get down to the source of the trouble and be specific about what we can do to change the behavior. Now I know how to go about the problem step by step...Willingness to try new things-- and the tools and know-how to go about it. An excitement about the fact that real changes can be made!...I've improved myself through self-evaluation and Precision Teaching. I feel ready to at least give new ideas a fair trial before condemning or condoning them...I am trying to let my students know exactly what is expected of them and by when..."

Regarding the Leading Discussions Tool

Following the two discussions which they observed, the observers were asked to write their impressions of the discussion process. The following comments are taken directly from the report which was submitted by the evaluation team:

"In the first grade discussion the children were lively and apparently enjoyed it. The second grade observer noted that the opportunity to participate seemed to influence the child's enjoyment of the discussion. Also, too general a topic created difficulty in the discussion: structure of ideas came more easily with specific topics. An observer of one adult group mentioned that participants complained about time wasted while the leader wrote everything down on discussion sheets. Another observer noted just the opposite: The leader wrote continuously while people were talking so there was no time wasted. It was noted that quantity of statements did not necessarily mean a more productive discussion. One observer felt that the two discussions were better organized

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and more productive than any she had ever taken part in."

Regarding the Precision Teaching Tool

The sociology student who completed the 17 interviews about the precision teaching tool, also wrote recomme .tions and summarized her impres.ions about the interviews which she completed:

The interviewer reported that "time" to use Precision Teaching correctly was a problem for those interviewed. The interviewees also suggested that: (1) the recording step should be simplified so students can easily record their scores, i.e., use bar graphs; or regular graph paper rather than six-cycle charts, and (2) inservice participants should be grouped, during the inservice program, by the grade level they teach so that they discuss ideas for the same aged youngsters.

The interviewer continues by saying that: "skill is increased by practice... those who had used Precision Teaching often, had more successes with it... Some failures may have occurred because the program was not followed carefully enough...there had been no consequences or no follow-through...or positive natural consequences were not used and the behavior reverted back to its original form...Not one teacher that I interviewed who had followed the procedure for Precision Teaching reported a failure."

AND she goes on to say: "Success may also depend on the attitude of people toward the program. There seemed to be an **overall** difference in attitudes toward Precision Teaching between the two schools. I received a feeling of great enthusiasm for the program from the teachers at X school, whereas the teachers at Y school didn't seem as interested in the program. There are several possible explanations for this. Most notable were the attitudes of the two principals. It was interesting to note that the enthusiasm of the principal was reflected in the teachers' attitudes. The principal at X school was very happy with the program and saw great use for it for his teachers. He seemed genuinely interested in his teachers and in a program that could help them in their teaching. The principal at Y school also said that Precision Teaching could be beneficial to his teachers, but kept reminding me that he had no use for it in his capacity as principal. I found myself disagreeing with him. Children are often sent to the principal on disciplinary matters—what better opportunity to sit down with the child and set up a Precision Teaching project to help the student change his behavior."

Finally, she says: "In looking over the responses to what was tried before Precision Teaching, I found that little outside of verbal reprimands was used. But once the teacher had a specific way to go about changing a behavior or increasing an academic skill, a measurable change began. Precision Teaching gives teachers a way to go about changing behavior humanly...The human aspect of Precision Teaching can't be overstressed. It seems as though a few people missed the 'human' part of the program, and had greater difficulty in using Precision Teaching in the way it was meant to be used. It is a human method of changing behavior, and its success may well depend upon the 'humanness' of the individual using Precision Teaching."

DISCUSSION

for

"Guidance in the Classroom" Project

Year No. One--1967-68

No stone was left unturned. We had all of the money which we meeded; many people were involved in planning the inservice program, and the project coordinator made several personal contacts with the inservice participants, e.g., (1) 35 of the 40 teacher participants were observed in their classrooms by the project coordinator, (2) two discussion meetings were held with seven of the 10 principal participants by the project coordinator, etc.

Although the participants seemed to "like" the program; while descriptions of classroom changes were reported, and although the project coordinator thought that the inservice program was a tremendous success, significant observable change cannot be interpreted as having resulted from this year's program. Also, the follow-up questionnaire suggests that the inservice participants' "liking" for the program was decreased after one year.

Our interpretation of the data was that participants can "like" an inservice program, and they can "learn" a lot, but it does not follow that they will necessarily change their teaching behavior. It seemed to us that more systematic approaches must be taught in order to accomplish meaningful change in education.

Year No. Two--1968-69

Our interpretation was that we finally had something going. The inservice participants: (1) significantly changed their classroom behavior, and (2) they "liked" the program. However, it was clear that the instructional program needed to be more precise, and the program objectives needed to be more relevant. That is, although students were "talking more" and teachers were "talking less" (see the results section for other significant changes) during classroom discussions-- How important are such changes? What is accomplished or resolved by conducting classroom discussions?

We were also interested that the data showed considerably less change in the variables evaluated through Content Analysis. Content Analysis was introduced to the inservice participants with a lecture, whereas the variables evaluated through Flanders' Interaction Analysis were introduced to the inservice participants by lecture and the following:

1. a <u>demonstration</u>--showing the instructional tool in action,
2. <u>practice for the inservice participants</u>--developing the skills to use the instructional tools back in their classrooms, and
3. <u>feedback evaluation to the inservice participants</u>--insofar as how they were doing in using the instructional tools back in their classrooms.

We interpreted lecture to be more valuable when it was followed by the above three procedures.

Year No. Three--1969-70

While the data may not have been as clear-cut as the previous year's, we were certain that this year's inservice program had a much greater effect upon student performance. This belief was based upon the reams of evidence which the inservice participants provided during the three individual interviews which we conducted with each inservice participant. Without a skillful evaluator, we did not have the tools to report this data, unless we wrote a book which included a listing of the evidence. And so, we find ourselves in the tenuous position of saying something like--"if you would have interviewed them, then you would know;" or, "if you visit this office, you can see the data."

At the end of the second year, we received pressure to have more people participate in our programs. While attempting to accomplish the goals: (1) including more people, and (2) significant change within these people, several costly mistakes were made in planning the third year's program, and it seems appropriate to report them here:

1. Too many inservice consultants

Nine additional change agents were added to the above team of four. Expanding from four to 13 not only became unwieldy but six consultants were found to not possess the skills and qualities which we desired. A "failure" percentage of 46 represents excessive inefficiency in any organization.

2. Too few inservice participants

Because we strove to accomplish significant change at a building level, we initially limited inservice participants to:

A. Building teams which included the principal and at least 50 percent of the professional staff. When we learned that this requirement would not be met we eliminated it (one week before the beginning of the program), but the damage was already done--potential participants had enrolled in other programs or lost interest.

B. Personnel who would participate in the entire six-month-long program. Few personnel will make such a major commitment without having first experienced the program (20, three-hour exhausting sessions held on Thursday evenings from 6:30 p.m.-9:30 p.m.). Two, 10-session programs should have been planned with participation in the first session required for participation in the second session.

DEVELOPING LOCAL

PUPIL PERSONNEL PROGRAMS

During the spring of 1968, a committee of seven met to plan an inservice program for pupil personnel specialists and classroom teachers.

Goal

The overall goal was to work toward increased self-awareness, improved professional competence, and increased utilization and coordination of professional efforts.

Procedure

Seven four-hour meetings were held for fourteen pupil personnel specialists and administrators from October, 1969 to March, 1970. Four meetings were held once a month on Wednesdays from 9:30 a.m. to 2:30 p.m. Three meetings were held on Saturdays from 9:30 a.m. to 2:30 p.m. Flyers were sent to school districts and a team of personnel was selected by the district to participate in the program. Six school districts sent a team to the first Wednesday meeting, but only two teams attended the second meeting on Saturday. Twelve participants enrolled for three college credits at a personal cost of thirty dollars. Attendance at the meetings was sporadic. Two teams did not return, following the first meeting, because the instructional program was more "structured" than they had anticipated. Only those participants who enrolled for college credit attended regularly. The first two and one-half meetings were directed to team-building skills and conducted by a resource person from business; the next two and one-half half meetings were directed to new approaches as follows: (1) remedial reading, (2) psychology, (3) counseling, (4) nursing, and (5) speech therapy. These meetings were conducted by: (1) a reading consultant, (2) three local psychologists, (3) a local counselor, (4) three local nurses, and (5) a speech therapy consultant. The final two meetings were directed to team planning, wherein the participants used team-building skills to plan the implementation of some of the practices suggested by the resource personnel during the second two and one-half meetings.

Results

No formal evaluation was completed. However, the twelve participants who enrolled for college credit reported innovative practices which they initiated in their school district.

Discussion

A committee of seven people planned this program. The committee was composed of an elementary teacher, secondary teacher, reading improvement teacher, psychologist, counselor, nurse and coordinator of pupil service. During the previous summer, we learned that conventional inservice programs produce little change. Also, programs without behavioral objectives are nearly impossible to evaluate. If it hadn't been for the great investment of time on the part of the planning committee, this program would have been cancelled. As it turned out, seven meetings were held; the meetings were sporadically attended, and this program was cancelled for the following year.

INSERVICE TRAINING

for

PRACTICING COUNSELORS

The Intermediate School District cooperated with the Pierce County Personnel and Guidance Association to organize an inservice program for practicing counselors.

Goal

The overall goal was to improve counselor skills while working with students and adults.

Procedure

Seven six-hour meetings were held for one hundred fifty to two hundred counselors and other pupil services specialists, teachers, and school administrators. The meetings were held on the first Monday of each month from September, 1968 to February, 1969. Seventy participants enrolled for college credit at a personal cost of thirty dollars.

In order that maximum use was made of the authorities' time, both afternoon (1 p.m. to 4 p.m.) and evening (7 p.m. to 10 p.m.) programs were scheduled for these seven Mondays. Seven national counseling authorities were engaged to accomplish the above goal. It was determined that the focus for the afternoon meetings be directed toward "working with students" and the evening meeting directed toward "working with adults." The format for each meeting was developed so that each speaker (a) gave a presentation, (b) conducted a demonstration (with students during the afternoon and with adults during the evening), and (c) inter-acted with the participants.

Results

No formal evaluation was completed. However, seventy-eight of the participants completed an anonymous evaluation. They were asked, "In comparision with other professional programs, how would you rate this year's program?"

Good (1)_____(2)_____(3)_____(4)_____(5)_____Poor

Six participants (8%) did not rate the program. Four participants (5%) rated the program "5." One participant (1%) rated the program "4." Four participants (5%) rated the program "3." Thirty-six participants (46%) rated the program "2." Twenty-seven participants (35%) rated the program "1."

Discussion

We again had the problem of nonbehavioral objectives and too unstructured a program. Another problem was planning a program with a committee who had no

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experience in planning and formally evaluating inservice programs. It seems
clear that planning, conducting, and evaluating inservice programs should be
done by a specialist. We would have achieved more, had we planned our own
program rather than trying to involve so many people in the planning aspects.
Once a program was thoroughly planned, it could then be made available to
interested educators. We may have had fewer participants, but those who did
participate may have been more motivated to accomplishing the program ob-
jectives. Again, serious limitations were found with programs which simply
exposed the participants to several "out-of-town experts."

RECOMMENDATIONS

These three years have been unreal. We have learned more about teacher inservice programs than the reader can imagine, unless he's had similar experiences. The following recommendations are based upon our learnings over this three-year project. And here's hoping that we can learn from each other, rather than each of us "inventing the wheel."

1. Inservice participants should pay an enrollment fee which is paid out of their own pocket.

We made the mistake of paying the participants $180 to attend our first year's nine-Saturdays session. If you have a program which is worth its salt, it's an honor to attend, and quality costs. Money paid by the participant is a good sign that the participant is interested in changing in the direction that the program is designed to help him change.

2. Inservice program consultants should be practitioners who currently (A) POSSESS and (B) PRACTICE, the skills they are encouraging the inservice participants to develop.

We've all heard many jokes about the "out-of-town expert." Significantly changing behavior in a lasting way takes: (A) time and (B) skill, like few people understand.

The "out-of-town expert" generally is not available to help people through the difficult learning moments. Meaningfully changing behavior is initially difficult and someone available to help when problems arise is needed. All things being equal, the best resource person is one who teaches the same grade level you do (she, of course, must participate in a special leadership training program). This person is currently doing what you are striving for and she can: (A) give you examples, and (B) show you how it's done. The "out-of-town expert" cannot be "all things to all people."

3. Inservice programs must be (A) human oriented, and (B) organized.

Blending humanness and organization is a difficult task, but both are essential. Most of us have laughed about the meeting which begins with "what do you want to do today?" It seems important for people to "like the program," if they are to continue with the new changes once they are no longer a participant in the inservice program. A program is too organized when it doesn't change with the ability of the participants and doesn't provide extra help for those who miss meetings. An anonymous evaluation will rapidly tell you how people "feel about the program." But be careful, don't try to please everyone--It just doesn't happen.

4. The tools that you're teaching inservice participants to use must (A) get results in the classroom, and (B) be easily used.

Interaction Analysis is not an example of this (Although Interaction Analysis is clearly understood to be an excellent method to analyze "classroom talk"). Our experience shows that the teachers we've worked with are not concerned about

scientifically (and laboriously) evaluating their talk but rather--how to improve it. Once having helped teachers to improve their "talk" they are interested in quick methods to evaluate their progress. While Interaction Analysis is well organized, it is not easily useable to teachers and; therefore, our follow-up studies snow that teachers do not follow-through on using this tool.

5. <u>Behavioral</u> <u>objectives</u> <u>are</u> <u>a</u> <u>must</u> <u>for</u> <u>inservice</u> <u>programs</u>.

Behavioral objectives which include: (A) "acceptable performance" (Mager, 1962), and (B) stating how <u>STUDENTS</u> are to behave differently as a result of the inservice program, are essential for organized change because:

(A) The teachers need to precisely know and understand what they are expected to achieve with their students,

(B) The consultants must know the precise objectives so that

(1) instructional programs appropriate to accomplishing the specific objectives are developed, and
(2) precise procedures to evaluate the program are determined.

6. <u>Behavioral</u> <u>objectives</u> <u>must</u> <u>be</u> <u>relevant</u> <u>and</u> <u>meaningful</u>.

With practice it becomes easy to write precise behavioral objectives, but precise objectives can be unimportant, i.e., teachers' talk no more than 20 percent during homeroom discussion period (of the total "talk"). It would be more important to study the effect the teacher's talk (or lack of talk) has upon students, e.g., (A) the number of students who verbalized a "relevant" idea during the discussion, (B) the number and kind of decisions reached by the discussions, (C) the number and kind of actions which resulted from the discussions, etc. It may be that during some discussions the topic, group or size of the group requires more teacher leadership, and the teacher talking about 40 percent of the time results in an increased number of students who: (A) verbally participate during discussions, and (B) take responsibility for action following the discussion. You should keep your objectives: (A) <u>few</u> <u>in</u> <u>number</u>, (B) <u>precise</u>, and (C) <u>meaningful</u>. Don't be trapped into writing a great number of precise but meaningless objectives (meaningless to teachers).

7. <u>Inservice</u> <u>programs</u> <u>should</u> <u>be</u> <u>held</u> <u>early</u> <u>in</u> <u>the</u> <u>school</u> <u>week</u> -- <u>on</u> <u>Tuesday</u> <u>or</u> <u>Wednesday</u>.

Inservice programs should be planned so that no later than the next day the teacher can try-out the new learnings in her classroom. We've tried: (A) all day Saturday, (B) three-fourths day Saturday, and (C) Thursday evenings, and we found each of these days and times to have serious limitations. You frequently hear that Mondays and Fridays are bad meeting days, so that leaves Tuesdays and Wednesdays with which to experiment. The greatest advantage of Tuesday or Wednesday is that the teacher has several days to plan and try-out the new learnings in her classroom before the weekend-forgetting curve sets in. We've found that our teachers were so tired from a three-hour Thursday evening program (6:30-9:30), that they didn't try to implement the skills on Friday--they were happy "just to get through the day." With the intervening weekend it generally took

them until the following Wednesday or Thursday to implement the new skills, and much had been forgotten by then. The worst time for inservice programs to change teacher classroom behavior is during summer school, when most teachers have to wait until September to try out what they've learned.

8. Inservice programs should be conducted on partial released time.

If a school district wishes to improve professional performance, then it should provide released time. But just like the personal commitment which we recommend (in recommendation No. 1 above), the teacher should contribute some of her own time to achieve professional growth. 60:40 is the ratio we suggest. 60 percent of the program conducted on school time to demonstrate the district's commitment to teachers, but 40 percent conducted on personal time to demonstrate a substantial investment by the individual (by the way, 60:40 is the same "money" ratio we recommend, i.e., if a program costs $100 per person, then $60 from the district and $40 paid by the individual is a fair share).

9. Inservice meetings should last about three hours.

"The mind can absorb no more than the seat can endure." We've tried two, three-hour sessions in one day, and it's too exhausting. The second three-hour block accomplishes very little. A well planned three-hour block of time is sufficient to: (A) explain, (B) demonstrate, (C) discuss, and (D) have the participants try out the skills. Anything more seems to be "too much -- too soon."

10. Two or three inservice sessions are the MINIMAL length of time to accomplish anything worthwhile.

"One-shot" meetings with out-of-town experts are largely a waste of time. If it is worthwhile to do, it's going to take time to do well. After an initial input which encourages teachers to do something differently -- the teacher should have the opportunity to meet again to explain: (A) what he did, (B) what went well, and (C) what difficulties he found. Suggestions should be given to overcome the difficulties listed, and a later meeting is helpful if you again discuss "how it went."

11. The inservice learning activities must include PRACTICE sessions for the participants.

In itself, lecturing or "talk" isn't helpful toward affecting organized change. Lecturing is valuable when it explains the background of what will be done, and it is followed by:

   (A) A demonstration of what was lectured about,
   (B) Participants practicing what was described and demonstrated,
   (C) Feedback is given to the participant insofar as:
       (1) what he did well and
       (2) what he can improve upon
   (D) Homework which emphasizes Practicing the skills on-the-job
   (E) Feedback, again, which includes what the teacher
       (1) did well with her students,
       (2) can improve upon with her students

12. The inservice program pupil-teacher ratio cannot be larger than 10:1.

You can't give teachers individual feedback and help, if there are more than 10 (even 10 is a large number to accomplish significant and meaningful change). It is much more efficient to do a program well for 10 teachers, than poorly for 50 teachers. If funds or resource personnel are not available for a large group, be highly selective with your 10 teachers (that is, the teachers who will gain most from the program not those who "need to change most") and they will: (A) gain a great deal from the program, (B) tell others how valuable the program is and (C) it will become the "in thing" to participate in the program. One of the 10 teachers may possess the qualities necessary to teach adults; your program consultant can train her as an assistant, and 20 of your best teachers can enroll in the next program. This gradual building of the best people within the system, will go a long way toward accomplishing long range instructional improvement.

13. Evaluation of the inservice program is essential, and not only "valid", "reliable", etc., but the evaluation must be PERSONAL and SENSIBLE to the teacher.

Evaluators have disgusted a great number of teachers by measuring the minutely unimportant, but doing it scientifically. Teachers are receptive to structured interviews which ask precise questions about the changes they've made. For example, one skill we taught our teachers was to write behavioral objectives. One month later we interviewed them about their use of behavioral objectives, e.g., (A) How many behavioral objectives have you written during the past month? (B) What were the behavioral objectives you wrote? (C) What was specifically accomplished by writing each of the behavioral objectives? The results were:

(A) Our teachers were responsive and specific during these structured interviews, and

(B) A great amount of data were gathered to improve our programs.

Highly scientific studies which control variables are valuable for other school districts to duplicate programs, but we must first determine if anything worth duplicating is being achieved, and this can be achieved through the structured interview. More scientific studies can be completed by observing and evaluating the program consultants using the skills on their jobs. The consultants are usually more receptive to evaluation than the program participants anyway.

14. Homework and reinforcement should be included in the inservice program.

Program participants should be required to practice the new skills on their job. Otherwise the program does not achieve its goal of changing students. Getting participants to overcome the fears of trying something new in their classrooms means that you must have some teeth. There must be something in it for the teacher for him to change. Don't be so naive to say: "teachers should change just because they ought to." This nice ideal hasn't worked in the past. We need to do much more work to determine what incentives will help teachers to change. If your inservice program involves college credit

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(an incentive which we have found to have some teeth), grades which are based upon how well the teacher changes her behavior to change students are an effective incentive for some teachers. Permission to leave school 15 minutes early is another possible incentive for some teachers. We prefer a salary increment or bonus for the teacher who can demonstrate evidence that her students have significantly improved as a result of the teacher's teaching -- a yearly structured interview can be conducted with the teacher to determine if she qualifies for the yearly salary bonus.

15. Beware of pooling ignorance.

Inservice programs should be planned by a specialist. We involved a lot of people in planning our initial programs because we thought we should. A lot of unskilled people will only plan a weak program. You should, rather arrange for specialists to plan and conduct your inservice programs, and then make it available to your teachers. The teachers don't have to be involved in planning. the program to recognize a good thing when it's presented to them.

The above recommendations are offered with the belief that "formulas" don't work with people. Although much can be learned by analyzing inservice programs which are conducted outside of your school district, in the final analysis--you must develop your inservice programs based upon decisions you make according to what is best for your people at that specific time.

Implications for Future Programs

Seven skillful consultants have been developed as a result of this three year Title III project. These consultants have conducted several training programs outside Pierce County, Washington, e.g., statewide conferences for directors of special education, school district administrator teams, etc. Also, presentations and demonstrations were conducted by this team at the 1970 ASCD and APGA National Conventions. This team of consultants will continue to conduct training programs for educators and other service organizations after the completion of the Title III project.

If there were a fourth year to the Title III project, we would continue teaching five of the previous year's six instructional tools (eliminating "analyzing discussions"), and we would add "individualized instruction." Also, we would observe many discussions, and evaluate them using the instrument developed this year. Finally, we would try to develop other instruments which

would be useful for evaluating the four other instructional tools which have been found to be effective.

Implications for Research

Regardless of the project objectives, it seemed that our instructional programs always included inservice work for educators. More and more, inservice is becoming a major impetus for change in education. Administrators nationwide want to develop skills, to evaluate teachers, to negotiate professionally, and to deal with student unrest. Teachers want to develop skills, to conduct parent-teacher conferences, to discipline students, and to involve students. Inservice is the natural vehicle to develop the above skills within administrators and teachers.

School personnel often plan inservice programs "by-guess-and-by-gosh." Rigorous evaluation of the critical components for changing the behavior of school personnel must be completed. For example, data which suggest answers to the following questions are needed:

1. Who should participate in inservice programs? Which learners will gain the most from the training? (Older or younger? Experienced or less experienced educators?)

2. What is the inservice program? To what programs will the learners be exposed? (Philosophy of education, teaching methods, etc.)

3. Why should educators participate? What are the objectives? What's expected of the learner? (Will he gain "new ideas" or be expected "to change his classroom practices?")

4. When will the inservice program occur? -- on school or personal time? -- on Saturdays or weekdays? -- during the school year or summer?

5. How will the inservice program be conducted? Will learners listen to lectures or tapes? -- view films? -- practice new skills?

6. Where will the inservice program be conducted? In the school or away from annoyances? (Telephones, T-V, etc.) What should the facilities include? (Volleyball courts, etc.)

7. <u>Evaluation</u> will occur in what specific ways? Will the in-service participant receive specific individual feedback? Who should do the evaluating?

8. <u>Reinforcement</u> will occur in what specific ways? Why should the inservice participant change? What does he get out of it? How will he be recognized for exceptional performance?

SUMMARY

Regarding the Pupil Services Programs

During the first year, the coordinator of pupil services spent considerable time writing an elementary counselor training program. After it was written, several discussions were conducted with the counseling staffs at Central Washington State College, University of Washington, and Pacific Lutheran University. The hope was to develop a local counseling training program which would result in a M.Ed. in elementary counseling. The local schools would provide the laboratory for the on-the-job training (coordinated by the intermediate district), and the university would provide the didactic training. The training program document was mailed to about 30 notable counselor trainers for their critique, and two-thirds of those contacted returned written reactions and suggestions to us. Discussions were also begun with the local schools, but the project director decided that such a program was too comprehensive for this office to initiate at this time. An elementary counselor training program is suggested for other intermediate districts to consider. Such a local training program, with counselors learning the five instructional tools included in the Guidance in the Classroom project, could be a breakthrough in counselor education, e.g., (1) counselors would possess the skills to improve student performance, (2) counselors would spend greater time in the classroom providing teachers with specific help for students, and (3) teacher-counselor relationships would be improved.

Numerous planning meetings were held, during the first year, with a committee to plan a program: (1) to improve local pupil services programs, and (2) to improve relationships between teachers and pupil services specialists. While the committee planned a seven-session program which was implemented the next year, it was not a program which other intermediate districts should model (see p. 31 for a further discussion of this recommendation).

During the Spring of the first year, the coordinator of pupil services was elected secretary of the Pierce County Personnel and Guidance Association. This seemed to be a natural vehicle for the intermediate district to cooperate with the local professional association to develop "a vigorous inservice training program for established counselors." A seven-session program was conducted during the second year of the project. Seven national counseling "experts" were brought to Pierce County and 150 to 200 counselors attended these meetings. The above professional association independently conducted a similar eight-session program the following year. Attendance ranged from about 150 at the first meeting, 25 at the seventh meeting, and the eighth meeting was cancelled because of "lack of interest." Such a program is not recommended for other intermediate districts (see pp. 32 and 33 for a further discussion of this recommendation).

"Guidance in the Classroom" was a tremendous example of "Creative Leadership via the Intermediate District." Guidance in the Classroom is recommended for other intermediate districts to emulate because:

1. Several thousand students have been directly effected by this program. A look at the results for 1969-70 show that several hundred: (A) discussions with students were conducted, (B) behavioral objectives were written for students, (C) social and academic student behaviors

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were changed, (D) students were developed as classroom tutors, and (E) students improved their performance through teacher-student evaluation conferences.

2. <u>Five effective instructional tools were identified</u>. We've experimented with several instructional strategies, and we've developed five which excite teachers and students because they produce positive results. The five tools are: (A) Leading Discussions, (B) Behavioral Objectives, (C) Precision Teaching, (D) Student-Tutors, and (E) Evaluating Students.

3. <u>The program was evaluated</u>. Although more rigorous evaluation is needed, the "methods" section of this report demonstrates that a variety of evaluations were completed.

4. <u>Seven local school personnel have been developed as school consultants</u>. Local leaders will continue to conduct training programs after the Title III project has ended. Programs have been conducted beyond Pierce County, Washington for: (1) school district administrator teams, (2) statewide conferences for directors of special education, (3) the Bureau of Prisons, etc. Also, this team of consultants conducted programs for the APGA and the ASCD 1970 National Conventions; a descriptive program brochure has been prepared. This is one of a very few programs which will continue beyond the period for which it was funded.

Regarding the Total Project

Although some "creative" programs were implemented, i.e., developmental placement, and guidance in the classroom, this three-year project did not accomplish the goals for which it was funded. Several reasons are evident for this failure, e.g., organizational limitations, personnel weaknesses, nonbehavioral project goals, little evaluation of programs, etc. Most notable of the personnel problems was a transient staff. After a year and one-half, the coordinator of curriculum resigned. Six-months later the project director and the coordinator of special projects did the same. The coordinator of pupil services served the project for the three years, and a new project director was hired for the final year.

The goal for this project was "to define the role and function of the new intermediate district." We were to identify "those necessary educational services which are appropriate to the intermediate district," and we do not have such a listing. We were to undertake "study and experimentation seeking an effective pattern for staffing an intermediate district office," and such a study was not completed, nor did we identify an effective staffing pattern. Also, we were to "study...patterns of organization and relationships through which an intermediate district can most effectively exercise its leadership role." Such a recommendation which is based upon study will not be forthcoming.

The above project goals represented a major obstacle. That is, defining the "role and function"..."necessary educational services"..."effective pattern for staffing"..."patterns of organization and relationships" are goals which are so nebulous as to provide no direction. Some of us worked to provide "creative leadership;" but being "creative" did not necessarily accomplish the

above project goals.

This writer is not convinced that the present intermediate district is a sound
organizational pattern. The intermediate district possesses no authority but
serves school districts where it is called upon to do so. For such a laissez-
faire organizational pattern to work, it seems that extremely competent per-
sonnel are essential. Personnel who are so competent that school districts
cannot afford to not take advantage of their services. Also, seeing that
services are to be aimed at the professional (rather than the student), e.g.,
(1) curriculum development, (2) evaluation of programs, (3) inservice training,
etc., a vehicle must be established so that the intermediate district per-
sonnel have the time to work with the professionals, i.e., released time, etc.
In general, such personnel and vehicles are not presently available to the
intermediate district.

Although some of this office's Title III projects have been successfully im-
plemented, to this writer, it seems wasteful to staff an intermediate office
with personnel who should be employed by a university, and made available to
school districts as resource personnel. Most of us agree that universities in-
adequately prepare school personnel. The most direct route to overcoming this
deficiency might be to concentrate our efforts toward overhauling the univer-
sities, rather than staffing an intermediate school district with sufficient
personnel to provide "creative leadership." Also, the universities possess a
natural vehicle to work with school personnel, e.g., "credits," "degrees," etc.,
whereas, the intermediate district does not.

Even though some of the Title III projects implemented by this office can be
fittingly described as demonstrating "creative leadership," it is suggested that
a good portion of these funds could have been better spent by:

1. Writing precise behavioral objectives for the projects.

2. Employing personnel who demonstrated prior "creative leadership"
   by successfully introducing and evaluating change programs before
   assuming the "full-time job" to do so.

3. Including a full-time experienced evaluator on the employed staff.
   Most of the staff did not possess the skills necessary to
   rigorously evaluate the projects as they should have been
   evaluated.

APPENDIX

LEADING DISCUSSIONS

It is:

A group solution-finding method which develops democratic leadership, increases constructive participant discussion, and results in positive actions taken.

"Leading Discussions" includes:

1. planning a relevant discussion question--the question must be important to the group and they must have the information necessary to suggest a solution, i.e., administrator asks his staff "what major topics should we discuss during this year's staff meetings?"

2. leader asks and writes an "opening question" for the participants to respond--this keeps the group from changing topics and makes clear where their help is needed, i.e., "what major building changes should we consider this year?"

3. sifting the suggested ideas and determining the action to be taken-- many of the ideas may lead to a solution but all cannot be acted upon at once so a "sifting question" may be asked; or the leader may determine which of the suggested topics to discuss at future staff meetings, i.e., "in what order should these topics be discussed?" Action: Topic No. 4 "beginning a staff inservice program to improve job performance" will be discussed at our staff meeting two weeks from today.

EXAMPLES OF RESULTS

Eighth Grade Social Concern

An eighth grade student led his class of 22 in a discussion about wearing mini-skirts to school. The discussion was led when some students became unhappy because the principal had said "mini-skirts could not be worn to school." The question asked was: "why do some people dislike mini-skirts worn to school?" 15 ideas were expressed by the students and following are the actions which resulted from the discussion: (1) students were given permission to have a "fashion parade" with those girls who chose to wearing mini-skirts, (2) the remaining students acted as judges,(3) feedback was given to the models as to whether they were "mini-skirt material ,(4) the result was that the girls decided they were not all cut out for mini-skirt wearing,and the furor against the principal's orders died a natural death. One girl stayed home from school the next day (Friday),and when she came back to school the following Monday she told her teacher that her skirts were all lengthened.

Bonnie Boyce, Junior High Social Studies Teacher
Eatonville, Washington

First Grade Curriculum Building

The teacher led a discussion about "rocks" with 26 first graders to introduce a science unit. The question asked was: "what would you like to learn about rocks?" 15 ideas were expressed and, then, the teacher asked "what can we do to accomplish this?" Following is the action which resulted from the specific suggestions expressed during the discussion: (1) a third grader gave a 20 minute oral report on "local rocks",(2) a junior high science teacher gave a presentation on igenous and sedimentary rocks--rock samples were shown and experiments were conducted,(3) a committee of three first graders went to the library to look up filmstrips and films--they ordered three films and four filmstrips and checked-out books,(4) some experiments which were read about in the books were conducted in class,(5) the first grade teachers talked and (A) three classes studied rocks together,(B) they made a hall display,and (C) planned art projects using rocks, (6) a field

trip to Wilkeson Quarry was taken and thefather of a first grader who works at the Quarry planned and directed the field trip.

Kathy Dalton, First Grade Teacher
White River, Washington

Individual Counseling

A fifth-grade student was referred to me because she disrupted the class five to six times a day. After talking with her, I led a discussion with her asking the question: "What does your attention seeking behavior look like?" She listed nine behaviors, i.e., asking the teacher for help during arithmetic when the student knew the correct answer, feigning a broken hand during P.E. period. The action which resulted from the discussion was to implement a Precision Teaching program to: (1) decrease the number of inappropriate "attention seeking behaviors,"and (2) increase appropriate "attention seeking behaviors" (i.e., trying out for the school play). Results are: (1) her teacher reports no inappropriate "attention seeking behaviors" during the past two months,(2) her grades have improved one full letter grade on her last report card,(3) she helps with a second-grade class in the library each week,(4) she was elected by her classmates to participate in the class play.

Mary Kralik, Elementary Counselor
Clover Park, Washington

Staff Meeting-Problem Solving

A rift was developing between the school district administrators and the salary committee of the local professional association. The administrators were strongly considering splitting away from the local association and establishing their own administrators association. By leading a discussion with the 40 administrators concerning "the advantages and disadvantages of supporting the local association,"it was determined that leaving the association would be a mistake. Further discussions developed methods of strengthening the relationship of the two groups. As a result of these discussions: (1) an administrator is running for the position of president-elect,(2) the communications between the local association representative council and the administrators have greatly improved,(3) the salary committee is once again representing the administrators in negotiations,(4) the district administrators are once again supporting the local professional association, (5) after the above discussion with the 40 administrators, the superintendent told the discussion leader: "This is a milestone in the history of our district."

Bruce Philbrick, Elementary Principal
Puyallup, Washington

Evaluating Consultant Performance

Midway through a 60 hour-five month long training program,a consultant led a discussion with six members of a consultant team to evaluate their performance. The question asked was: "What are our strengths and areas for improvement as a consultant team." Seven strengths and six areas for improvement were expressed. Action resulted from the discussion to overcome two major areas for improvement which were expressed: (1) demonstrations and micro-teaching are held with consultants before they conduct training programs to improve the consultants' skills,(2) a feedback sheet was developed to give participants quick accurate feedback evaluation in regard to their performance;so that they know how they are doing and can plan improvements. Feedback methods were introduced for each training program conducted since this meeting.

Dan Kralik, Consultant, Intermediate School
District 111

Description of Variables

Variable I concerned the establishment of a discussion topic. Scoring ranged from one point ("topic established by leader without discussion") to five points ("topic evolved jointly").

Variable II a-d described the opening question. Variable I-a established whether the question was written (one point) or not written (zero points); Variable II-b, whether words were underlined (yes - one point, no - zero points); Variable II-c, the purpose for underlining--"further delineation and clarification" (two points), "emphasis" (one point) or no underlining (zero points); Variable II-d, background information for opening question -- "given" (one point), "not given" (zero points); Variable II-e, observer understood reason for opening question -- "clear" (one point), "unclear" (zero points).

Aspects of the leaders' role comprise Variable III -- VIII. Variable III is the number of restatements of the opening question. Variable IV is the number of times the leader facilitates discussion, and Variable V is the number of times he discourages discussion. Variable VI deals with the length of time (in minutes) that the leader talks, and Variable VII relates to the length of the total discussion. Variable VIII is the percentage of leader talk during the discussion.

Variable IX is the percentage of the participants present at the discussion who participated verbally. Variable X a-d comprises the totals of relevant and irrelevant statements and questions. Variable XI is the percentage of the total number of participants making at least one relevant statement or question; Variable XII are those making at least one irrelevant statement or question. Variable XIII and XIV are total number of examples of relevant and irrelevant comments, statements and questions. Variable XV is the percentage of participant time.

Reliability

As a reliability check, two observers independently analyzed the same discussion. Their results were similar, indicating a high inter-observer reliability. Differences between the two observations were most marked on Variables XI thru XIII which depended on judgements of relevancy and irrelevancy of statements by participants. (see reliability check, Table IV).

Action

During the second observation, the observers checked with the discussion participants, from the first observation, to determine if the action which resulted from the discussion was implemented. Seventy-five percent of the action statements were implemented.

Affective Measures

After each discussion participants were asked to complete a brief questionnaire (Affective measure). The Junior high through adult groups (Intermediate and Adult form - see Table V), were given a choice of five adjectives or adverbs describing a statement about discussions, Each adjective or adverb was given a value from five to one (best to worse). These participants were also asked to order films, discussion, reading, lecture and committee work from most enjoyable (one) to lease enjoyable (five), and from most efficient (one) to least efficient (five). Means are provided for this group in Table VI.

The discussion participants at the primary level were asked to show which of the five activities they most liked by putting an X thru the picture depicting that activity. The activity they like least was marked by a circle. The activities were reading alone, discussion, a film, a boy and girl playing ball and individual reading with the teacher. All faces in the drawings were smiling and happy.

TABLE I - LIST OF VARIABLES

LEADER D

I. Topic. (check one)

Variable I. 1. Established by leader without discussion.

2. Established by leader with discussion and no consideration of alternatives.

3. Alternatives list is abolished by teacher.

4. Topic chosen from alternatives suggested by group.

5. Topic evolved jointly.

II. Opening Question.

Variable II-a
1. Is opening question

a. written?_____

b. not written?_____

" II-b
2. Words underlined? Yes _____ No_____

" II-c
3. a. Purpose of underlining for further delineation and clarification._____

b. Emphasis_____

" II-d
4. Is the background information or context of opening question provided?

_____   _____
Yes   No

" II-e
5. Does the observer understand the reason for opening questions?

clear_____ unclear_____

III. Discussions.

Variable III. _____ 1. Total number of times opening question is restated (as a parallel?) (Must include major idea of opening question).

" IV. _____ 2. Total number of times leader facilitates a participants' responses (such as "Would you give an example of; encouragement - reinforcement: that's good, go on; what you mean is") (Don't include any statement or remarks by leader which discourages communication).

" V. _____ 3. . Number of times leader discourages ("just a minute") communication.

" VI. _____ 4. Total amount of leader time (to include pauses that follow leaders' remarks)

" VII. _____ a. Total time

" VIII. _____ b. Leaders' percent of total discussion time.

RATING SHEET E

IV. Participants

Variable IX. 1. Number of different individuals who participate_____ (participation equals verbal expression of independent complete thoughts).

"Quote participation statements" (use A separate sheet)

2. Participation Sheet A.

Variable X-a. Record Summary Total number of independent relevant statements

" "-b. " " " " " " irrelevant "

" "-c. " " " " " independent relevant questions

" "-d. " " " " " " irrelevant "

Variable XI. Percent of total in room who make at least 1 relevant statement or 1 relevant question._____%

" XII. Percent of total in room who make at least 1 irrelevant statement or 1 irrelevant question._____%

-50-

Variable XIII.   Total number of examples of R_____.

 " XIV. Clarification and examples of ideas in (a) above.
       I_____.

 " XV. 3. a. Total amount of participant time _____

         b. Percent of total discussion time _____

TABLE II - FIRST OBSERVATIONS

VARIABLE	MEAN	STUD. DEV.	STUD. ERROR	MAXIMUM	MINIMUM	RANGE
I	2.1	1.19	.7	___	___	___
II a	1.0	___	___	___	___	___
b	.33	___	___	___	___	___
c	.66	___	___	___	___	___
d	.74	___	___	___	___	___
e	.88	___	___	___	___	___
III	8.000	5.454	1.818	17.000	3.000	14.000
IV	20.222	9.692	3.231	32.000	6.000	26.000
V	1.444	3.059	1.082	10.000	0.000	10.000
VI	15.444	5.503	1.834	24.000	7.000	17.000
VII	26.333	6.103	2.034	30.000	15.000	15.000
VIII	59.000	16.756	5.585	81.000	26.000	55.000
IX	63.667	12.570	4.190	83.000	50.000	33.000
X a^7	27.1	14.2	5.46			
b^6	4.14	5.09	2.12			
c^7	1.00	.09	.93			
d^7	7.14	3.9	1.5			
XI	63.556	20.893	6.964	100.000	39.000	61.000
XII	18.444	16.831	5.610	44.000	0.000	44.000
XIII	27.000	24.683	8.228	85.000	4.000	81.000
XIV	6.77	5.5	2.357	19.000	0.000	19.000
XV	39.889	14.469	4.823	64.000	19.000	45.000

TABLE III - SECOND OBSERVATIONS

VARIABLE	MEAN	STU. DEV.	STU. ERROR	MAXIMUM	MINIMUM	RANGE
I	1.88	1.14	.40	____	____	____
II a	.88	____	____	____	____	____
b	.63	____	____	____	____	____
c	.75	____	____	____	____	____
d	1.0	____	____	____	____	____
e	1.0	____	____	____	____	____
III	5.250	2.712	0.959	10.000	2.000	8.000
IV	16.875	6.978	2.467	30.000	6.000	24.000
V	2.000	1.852	0.655	5.000	0.000	5.000
VI	12.375	2.387	0.844	16.000	9.000	7.000
VII	24.125	6.289	2.224	30.000	12.000	18.000 :
VIII	53.250	15.755	5.570	78.000	33.000	45.000
IX	70.750	15.600	5.515	91.000	48.000	43.000
X a^6	45.1	21.03	8.59			
b^6	3.8	3.7	1.55			
c^6	1.5	1.1	.61			
d^6	3.5	4.5	1.83			
XI	74.500	17.221	6.089	100.000	55.000	45.000
XII	21.000	19.676	6.956	54.000	0.0	54.000
XIII	42.625	28.096	9.934	101.000	16.000	85.000
XIV	5.375	5.344	1.889	15.000	0.0	15.000
XV	46.750	15.755	5.570	67.000	22.000	45.000

TABLE IV - RELIABILITY CHECK ON TWO OBSERVERS

Variables I	II	a	b	c	d	e	III	IV	V	VI	VII
Ob$_1$	1	1	0	1	1	1	17	32	0	17	30
Ob$_2$	1	1	0	0	1	1	17	30	0	16	30

	VIII	IX	·	X	a	b	c	d	XI	XII
Ob$_1$	56	83			— —	—	— ·	—	83	16
Ob$_2$	53	83			— —	—	—	—	100	0

Variables	XIII	XIV	XV
Ob$_1$	19	2	47
Ob$_2$	15	0	50

TABLE V

At the end of the 16 observed discussions, the discussion participants completed an affective instrument. Following are the results for the discussion participants who were in the fourth grade or older.

Means for Observations 1 and 2 on Intermediate and Adult Affective Measure

INTERMEDIATE AND ADULT

1. In comparison to the best discussions I have ever participated in, I would rate this discussion as:

			$\overline{N}=46$	$\overline{N}=48$
5.	a.	superior	$\overline{Ob_1}$	$\overline{Ob_2}$
4.	b.	good		
3.	c.	average	4.3	4.1
2.	d.	below average		
1.	e.	poor		

2. How well did the discussion leader accept my ideas?

		Ob_1	Ob_2
a.	extremely well		
b.	well		
c.	average	4.4	4.2
d.	below average		
e.	poor		

3. To what extent did each participant have a chance to say what was of greatest importance to him without fear of any kind?

		Ob_1	Ob_2
a.	completely		
b.	usually		
c.	some	4.6	4.5
d.	little		
e.	never		

4. To what extent did the discussion lead to action?

		Ob_1	Ob_2
a.	perfectly		
b.	adequately		
c.	somewhat	4.1	4.3
d.	barely		
e.	not at all		

5. The understanding I get from a discussion is:

		Ob_1	Ob_2
a.	more than by any other method		
b.	about the same as with any other method		
c.	less than by any other method	4.4	4.8

6. Using an easel pad for discussion is:

		Ob_1	Ob_2
a.	essential		
b.	important		
c.	of some use	4.3	4.5
d.	of little use		
e.	of no use		

7. Underlining words on the easel pad is:

		Ob_1	Ob_2
a.	essential		
b.	important		
c.	of some use	3.6	3.8
d.	of little use		
e.	of no use		

8. With regard to enjoyment, rate each of the following from (1) best to (5) worst.

		Ob_1	Ob_2
a.	films	2.4	2.4
b.	discussion	1.8	1.9
c.	reading	3.6	3.4
d.	lecture	4.4	4.3
e.	committee work	2.3	2.9

9. With regard to its efficiency in getting things done, rate each of the following from (1) best to (5) worst.

		Ob_1	Ob_2
a.	films	3.2	3.4
b.	discussion	1.5	1.6
c.	reading	3.9	3.3
d.	lecture	4.4	4.0
e.	committee work	1.9	2.3

TABLE VI

At the end of the 16 observed discussions, the discussion participants completed an affective instrument. The order from most preferred to lease for the primary grade participants was:

1. film
2. reading alone
3. discussion
4. reading with the teacher
5. boy and girl playing ball

A likely reason for the dislike for playing ball is that the picture shows a boy and girl playing together, an activity which apparently is disliked by both sexes of children at that age.

Elementary Affective Form

$$\overline{N}=72$$

1. Child reading by himself

        Like Best   Like Least
           4   2.3

2. Classroom discussion

        Like Best   Like Least
          2.7   3.7

3. Watching a film

        Like Best   Like Least
          8.7   .67

4. Boy and girl playing ball

        Like Best   Like Least
           3   8.3

5. Individual reading with teacher

        Like Best   Like Least
          2.7   4.7

INTRODUCTION TO PRECISION TEACHING

There are 3 essential steps:

1. Pinpoint
2. Record
3. Discussions and Consequences

Pinpoint

Specify the behavior to be improved. Make sure the behavior is <u>observable</u>, for example, "smart remarks." "words spelled correctly," stuttering" -NOT- "poor attitude," "not cooperative," "little effort".

Record

Count the number of times the behavior occurs and record it onto a piece of paper (such as a graph) or something that the person can see. Remember that a person needs to accurately see what he is doing in order to change the behavior. The "record" is like a mirror. What would it be like to change your hair style without a mirror? It's equally as hard to change other behavior without something which shows how you are doing.

Discussions

The behavior to be changed (pinpoint) and how often it occurs (record) must be discussed with the person who owns the behavior. With him you need to develop a human relationship so that he <u>wants</u> to change. This is often accomplished by "practicing what you teach," that is, changing a behavior yourself. You might even ask him to suggest a behavior he would like you to change. Keep in mind that you can manipulate people (trick or force them into changing) but the chances for the behavior to stay changed when <u>you</u> aren't around to manipulate him are greatly reduced.

Consequences

During your discussions with the person, the two of you should develop consequences. That is, the positive or negative thing which happens after the behavior occurs. Consequences must be developed with the person who is changing the behavior. This is important because what is positive and negative is different for each person. Some people think it's great to stay after school (more attention from the teacher) and others hate it. Some like to vacuum and others don't.

Don't be so foolish to say: "people should change just because they should." The behavior hasn't changed yet because <u>it's more worthwhile not to change</u>. It's up to the two of you to develop consequences which: (1) turn the person on and (2) are natural (<u>natural</u> means that it can readily follow the person through life, i.e., free time, praise, as opposed to <u>mechanical</u> like paying or bribing someone to change).

Hints to Remember

1. Try to change only ONE behavior at a time (first things first, one at a time).

2. It's easy to get someone to STOP doing something. The hard part is getting him to do something better - to behave as a responsible person as opposed to a nothing (a quick count of the numbers of people on welfare shows that many able people are learning to do nothing). Keep in mind that if a deadman can do it (like sitting quietly)you aren't developing a responsible person yet!

3. Continue to count the behavior even when it seems to be improving. Don't get lazy! Wait till he's been very successful before you start to count the behavior "every so often".

4. You must Must MUST be consistent with the consequences. If the two of you agree that he earns 30 minutes extra T.V. on Friday night if he makes his bed for five days in a row, then make sure that he gets the 30 minutes extra T.V. this Friday. If you agree that he can't go bowling on Saturdays if his bed isn't made at least three ti , during the week then NO BOWLING. Be Consistent.

PRECISION TEACHING-PRECISE BEHAVIOR CHANGE

It is:

A method to humanly and precisely change behavior

"Precision Teaching" includes:

1. pinpoint an observable behavior and a goal to shoot for, i.e., increased: art projects completed, reading rate, team games played, verbal participation during class discussions; decrease: fights, smart remarks

2. feedback methods to show the learner how he is progressing, i.e., scores plotted on: graph paper, behavior report card

3. discussions with the learner and consequences--each step is discussed with the learner to involve him in the change program-- positive or negative consequences which follow the observable behavior are discussed with the learner and included, i.e., 15 minutes tether ball with principal if goal is reached, 30 minutes to bed early if goal is not reached

4. five methods to encourage continuing results, i.e., including parents in the change program, social praise for work completed, intermittent consequences, etc.

EXAMPLES OF RESULTS

Academic Behavior - Eighth Grade

Some facts in social studies such as parts of the globe must be learned by rote memory. These are ideal timed tests that can be used with Precision Teaching. The children are given (1) a globe to label and (2) five minutes. The students repeat the test until their score is perfect. Daily results are put on a graph. Consequences: when the student passes his test two times in succession: (1) he may tutor other students (2) social praise from the teacher. Results: (1) all students passed the test (2) affective results were very positive (3) cheating was eliminated by the opportunity to keep trying until you succeed.

Bonnie Boyce, Junior High Social Studies Teacher
Eatonville, Washington

Social Behavior - First Grade

Last September, nobody wanted to play with John--a boy who was in fights constantly, threw five or six temper tantrums, and was kicked off the bus for disobeying rules. Following many discussions with his teacher, John decided that he would work to eliminate a frequent remark of his "Oh no--not this junk" (statement tallied 21 times during the preceding school day). If he made this remark he had to color in a square of graph paper (he kept his own chart) and copy five words from his phonics book. When he had a perfect chart his reward was to learn to thread the movie projector. He made this goal in less than one week and he has run the projector for class movies. The side effects have been many. John is now one of the best readers in his class, shows pride in his work, has been commended on his improved bus behavior, and has many friends both in the classroom and on the playground.

Kathy Dalton, First Grade Teacher
White River, Washington

A Rather Big Problem

A second grade girl masterbated an average of 15 times a day in the classroom. Initially, the teacher tried to ignore the behavior but the other students called attention to it. The child's parents reported that over the past two years they had taken her to three doctors---the doctors reported that there was nothing wrong physically and they advised the parents to ignore the behavior. A Precision Teaching program was set-up and it included: (1) counting the number of times her hands were in her lap (2) recording the number of occurrences onto charts which were kept at home and school (3) positive and negative home and school consequences, i.e., home: (A) positive was "helping with vacuuming", (B) negative was "in bedroom without dolls", school: (A) positive was "dancing (ballet) with counselor", (B) negative was "leave school five minutes early". Results are: (1) behavior has occurred five times during the past two months (2) her parents said: "now she acts like she's loved at home" (3) her teacher reports that her grades have improved (4) the counselor is getting to be a better ballet dancer.

Mary Kralik, Elementary Counselor
Clover Park, Washington

Evaluating Teachers

A principal was finding it difficult establishing a program of classroom visitation and teacher evaluation. He developed a personal Precision Teaching program which caused him to complete at least one evaluation per day. His positive consequence was the accomplishment of the task of evaluation as required by statute and his negative consequence was to conduct a minimum of two evaluations the following day. To date the principal has achieved 100% success completing: (1) at least one evaluation per day (2) all teachers have been evaluated and (3) specific courses of action have been implemented to help those who were evaluated to improve their teaching.

Bruce Philbrick, Elementary Principal
Puyallup, Washington

Reducing Smoking

A 28 year-old gal smoked an average of one and one-half packs of cigarettes for seven years. This person uses Precision Teaching on her job and she decided to use it to reduce smoking. One night she brown-bagged her cigarettes, gave them to her husband (he is also a user of Precision Teaching) and said she was going to quit smoking. She built up sewing as a replacement to smoking and used intermittent "surprises" (i.e., dishes washed for her, an evening walk around the block) and social praise from her husband as consequences. Results were she: (1) eliminated smoking for six weeks (2) smoked one cigarette per week for the next six weeks (3) then regressed by smoking seven cigarettes over a three-day period (4) is currently smoking one to two cigarettes per week.

Dan Kralik, Consultant, Intermediate School
District 111

PRECISION TEACHING INTERVIEW

By Robin Savage, WWSC

1. How did it happen that you took Precision Teaching?

2. What is the value of Precision Teaching to you?

3. On what behaviors were (are) you working?

   How did it go?

4. What else was tried before Precision Teaching to change this behavior? To what effect?

5. With what other people have you developed Precision Teaching Projects?

   What was the behavior?

   How did it go?

6. What else was tried before Precision Teaching to change this behavior? To what effect?

7. What behaviors other than your pinpoints did you notice being changed?

8. In what areas do you have trouble using Precision Teaching?

   Was the difficulty with the child, yourself, or both?

9. How would you change Precision Teaching to better suit the needs of both you and the child?

10. How do you plan to use Precision Teaching after the Practicum is completed?

11. To whom have you taught Precision Teaching?

    What was the pinpoint?

    How did it go?

12. How successful has Precision Teaching been for you so far? Why?

extremely successful	very successful	fairly successful	not successful	useless

13. Other Comments:

TABLE VII

1. The 14 teachers, two principals and counselor were asked to rate Precision Teaching, as an instructional tool, along a five-point scale. Following are the results:

extremely effective	very effective	fairly effective	not effective	useless
5 (29%)	10 (59%)	2 (12%)	0	0

2. When asked what the value of Precision Teaching was to them - some replies were:

"It is a beautiful, human way to change behavior."
"It's the method that really works."
"It shows you how to change a behavior."
"It brought up grades where I had not thought it possible."
"I can't see not using it."
"Keeping track all the time shows exactly where the children are."
"It gives precise data to work with."
"Helps to pinpoint problems and evaluate them."
"Students are more aware of their behavior."

3. Following are some examples of Precision Teaching projects which were reported during the interviews:

PINPOINT[1]	WHAT WAS TRIED BEFORE[2]	HOW DID IT GO WITH PRECISION TEACHIN
Masturbation	Talked to and punished by parents. Saw three doctors to see if problem was physical	Going great. Rate decreased from 7-8 times in ½ day to zero after six weeks. Consequences: positive at school; stayed after and helped teacher. Positive at home; helped clean up. Negative at school; had to leave 5 minutes early. Negative at home; sent to her room without dolls

1. "Pinpoint" refers to the social or academic behavior which teacher and student were trying to change.

2. "What was tried before" refers to what the teacher did before Precision Teaching to try to change the pinpoint.

3. "How did it go with Precision Teaching" refers to results occurring afterwards.

Exercise	Nothing	Worked well and felt great. Went from 100 jump ropes to 300; from 5 sit-ups to 50; from 10 bends and stretches to 50. Consequences: Positive - could spend time alone or do what she wanted to do.
Hitting on playground	Stood him against the wall. Talked to him	Teacher observed 15 hits in 30 minutes and told him afterwards that she would be counting. Observed 7 hits next day. After she got him a ball to play with, hitting went to zero a few times and leveled off at 2.
Boy distrubing class	Getting upset with him was actually reinforcing bad behavior	Teacher very pleased. With decreases in fighting, there was an increase in profficiency and penmanship.
Class project: being quiet, listening quietly to t.v. classes	Nothing	Used 3 minute group bank: if class was quiet, they got three minutes free time. At the end of one week, they had accumulated 26 minutes and used the time playing with clay. Quite successful.
Timmy laughed when Daryl made funny faces	Scolded: talked to them	Had both boys count number of times pinpoint occurred. With a decrease in laughing, there was an increase in work done. Very successful.
Two boys, one getting angry and mumbling The other displaying his temper	Verbal reprimands	Listed ways of displaying tempers. Limited outbursts to 7 a week. Consequences: negative; could not watch t.v. Saturday morning, Positive; fishing trip with father. One boy stopped immediately.
Learning alphabet	Drills; usual teaching methods.	By making charts, filling in letters already learned, leaving blank those yet to learn, children were more eager to learn. Went well.
Academic behaviors Math-number of correct facts.	Practice-effect unmeasurable. Kids did not like it.	Good results, especially with slower students. Went fine.

BEHAVIORAL OBJECTIVES--MANAGEMENT BY OBJECTIVES

It is:

A three-step process to specify what job performance is expected of yourself and of the people with whom you work.

"Behavioral Objectives" includes:

1. what is to be accomplished, i.e., "administrators are to evaluate each staff member at least once this year".

2. the conditions imposed or made available to the person, i.e., "using an evaluative instrument which is cooperatively developed by administrator and staff, within a $500.00 budget and by April 15".

3. acceptable performance, i.e., "so that at least 50 per cent of the evaluated staff noticeably improve their performance".

The above complete behavioral objective now reads as follows:

"Using an evaluative instrument which is cooperatively developed by the administrator and his staff, within a $500.00 budget and by April 15, administrators are to evaluate each staff member at least once each year;so that at least 50 per cent of the evaluated staff noticeably improve their job performance".

EXAMPLES OF RESULTS

Eighth Grade-Social Studies

A high school social studies teacher said the biggest problem with new students is that they "hate" social studies. The junior high social studies teacher began to teach by writing behavioral objectives for each unit. Results are that the students plan how to accomplish the objective, i.e., order their own films, use multiple textbooks, use library extensively, work in groups or individually, students: debate, put on plays, give oral and written reports, and tests have changed from multiple choice to essay. The present junior high students now: (1) use spare time on social studies (study hall, free time), (2) work output is increased significantly (especially with students who didn't work before),(3) use of library has jumped (4) many students say: "social studies is my favorite subject",(5) other teachers are somewhat disgruntled that social studies is such a favorite,(6) classroom discipline problems are reduced.

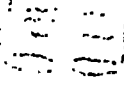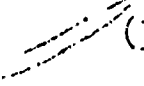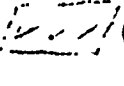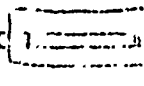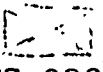Bonnie Boyce, Junior High Social Studies Teacher
Eatonville, Washington

First Grade-Reading

Because I felt that my first-grade pupils had to know both long and short vowel sounds in order to independently sound out words, on October 27, I posted the following behavioral objective: By November 13, everyone will know all long and short vowel sounds." By clearly presenting to the children what they were expected to learn, they zeroed in on the task. All 26 knew these sounds by November 4.

Kathy Dalton, First Grade Teacher
White River, Washington

Remedial Students-Sullivan Reading

After two months of attempting to get three remedial students to independently get their materials ready for class (six items), a behavioral objective was posted for them. Here it is: "Without help from Mrs. Kralik, Fred, Herman and Ralph will get the following things ready for reading:

(1) book `[book icon]` (2) pen `[pen icon]` (3) charts `[charts icon]` (4) timer `[timer icon]` (5) kleenex `[kleenex icon]`
(6) sounds `[icon]` so that you put at least five things on the table before the
timer rings each day" (timer was set for two minutes). Result: their
materials have been ready everyday for the past three months.

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Mary Kralik, Elementary Counselor
Clover Park, Washington

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Staff Meetings

After three years of working with the local elementary principals association
two principals became considerably concerned about: (1) the lack of curriculum
programs developed by the group and (2) the inability of the group to intro-
duce change programs within district elementary schools. Although the orga-
nization met twice a month and a three day summer workshop was held to im-
prove their abilities to work together the productivity of this group was
minimal. Therefore, two members took it upon themselves to establish be-
havioral objectives for themselves which were aimed at altering the orga-
nizational system of the elementary principals. The two principals outlined
for themselves their respective responsibilities for encouraging a change to
take place. Within three weeks time they effected a complete change in the
operation of the organization which, prior to that time, had become drasti-
cally bogged down in caring for details of operation (details which were
important but were insignificant in relationship to what this group could
have been doing). The organizational changes made were: (1) rather than have
the group of twenty involved in dealing with these details the executive
board was empowered to make the decisions regarding the operation of the ele-
mentary schools (2) one full meeting per month is devoted to the development
of in-depth study of curricular activities, i.e., (1) evaluation of elem-
entary principals' role in professional negotations (3) a complete revision
of the maintenance department occurred because curricular activities couldn't
be held due to equipment which wasn't properly functioning.

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Bruce Philbrick, Elementary Principal
Puyallup, Washington

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Problem Solving

A team of six educators worked nine futile hours to develop a six hour teacher
training program. After the nine frustrating hours they were given a written
behavioral objective for their program. Within the next three work hours
they completely planned the program. The poor relationships which developed
during the first nine hours were not satisfactorily resolved, however.
One can only wonder what their present relationships would be if the be-
havioral objective had been written prior to their first planning meeting.

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Dan Kralik, Consultant, Intermediate School
District 111

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It <u>is</u>:

An approach which stretches your students by challenging them to teach other students

"Student-Tutors" <u>includes</u>"

1. procedures which develop teaching skills within the tutors

2. tutors practice the skills to develop expertise

3. tutors teach others and receive immediate feedback evaluation insofar as how they are doing

<u>EXAMPLES</u> <u>OF</u> <u>RESULTS</u>

<u>Eighth Graders Teach Fifth Grade</u>

A social studies teacher concerned that only "A" type students were given opportunities to do the special things at school allowed a team of four low-average ability eighth graders to teach a social studies unit to a fifth-grade class. Results showed (1) both tutors and the fifth grade class improved in knowledge of subject (2) tutors' classroom behavior improved because they learned what a teacher goes through (3) tutors learned how to plan their work and organize their time to make up for time spent out of class while teaching the fifth grade (4) the teacher found that the low-average students worked as well as their "A" grade classmates when given the opportunity.

Bonnie Boyce, Junior High Social Studies Teacher
Eatonville, Washington

<u>First Grade Assistants</u>

I made phonics card-packs for different levels of reading skills, e.g., vowel sounds, consonants, blends, digraphs, etc. When a child knew one phonics pack, he then became a tutor for a fellow student who did not know those sounds. As a result of this student-tutor program, I feel this year's first grade class is reading at a higher level than previous classes. A standardized test given at the end of the first semester to the 26 pupils showed that 24 pupils were reading above grade level and two were reading on grade level.

Kathy Dalton, First Grade Teacher
White River, Washington

<u>Physical Fitness Program</u>

A fourth grade teacher and the building principal wanted to improve the eleven-station physical fitness program. Eleven student-tutors were selected from the teacher's class and each tutor became an expert at one physical fitness station, i.e., push ups, squat jumps, etc. The teacher's remaining twenty-four students as well as all other fourth, fifth and sixth-grade students (within the building) have been taught the eleven physical fitness exercises and their performance was eval-

uated by the student-tutors. Each teacher observed the student-tutor program in operation and a teacher's meeting was held and each teacher demonstrated his (her) proficiency at each of the eleven stations. The principal said: "The student-tutor program made it possible to create an effective physical fitness program which would have been difficult to achieve without their aid".

> Bruce Philbrick, Elementary Principal
> Puyallup, Washington

Local Consultants

A teacher trainer had the responsibility to organize and evaluate in-service programs. He and several out of town resource persons conducted an unsuccessful first year's program. Instead of paying out of town consultants the teacher trainer decided to develop three local consultants for the second year's program. The second year's program was superior to the first while the third year (with 12 trained local consultants) was an outstanding success. Many programs have been conducted by the local consultant team including statewide training programs and the results from these programs are exhilarating. The original teacher trainer is moving to take a new position but the solutions which he initiated will be carried out and improved by the assistants whom he trained.

> Dan Kralik, Consultant, Intermediate School
> District 111

EVALUATING PERSONNEL--EVALUATING STUDENTS

It is:

A method which humanly and precisely helps personnel or students to improve their performance

"Evaluating Personnel" includes:

1. identifying and building upon the individual's strengths

2. identifying and discussing the individual's areas for improvement

3. identifying one to three major areas for improvement and developing a specific action plan to overcome them

EXAMPLES OF RESULTS:

Eighth Graders Evaluate Themselves

A "well dones" - "opportunities for improvement" evaluation is used with each of my seventh-grade social studies students several times during each quarter (for example, after oral work and for each written report). These evaluations form the basis for each student to evaluate himself and to suggest his grade at report card time. I had to conference with only four students (to make a grade adjustment) the first quarter and two students the second quarter because of a poor assessment of themselves--all other grades went onto their report cards unchanged. This resulted in (1) no calls from parents questioning their child's grades (their child could explain and show why they earned the grade) (2) increased motivation by the students to improve their work the next quarter (3) reduced teacher "trauma" about report cards.

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Bonnie Boyce, Junior High Social Studies Teacher
Eatonville, Washington

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First Graders Evaluate Their Teacher

When asked what their teacher "did well", and what her "opportunities for improvement" were, a first-grade class suggested that the posting of a daily work schedule would help minimize confusion when groups of children were working independently. The teacher has since followed this course of action with the results being a more favorable classroom atmosphere (less teacher reminders to get to work!) and the work output of the children greatly increased.

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Kathy Dalton, First Grade Teacher
White River, Washington

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An Individual Evaluates Himself

A "well dones" - "opportunities for improvement" conference with a fourth grader resulted with him selecting "fighting on the playground" as a behavior to attempt to reduce (playground fighting occurred about three times a day). The student: (1) made a chart on which he recorded the daily occurrence of the behavior (2) set-up positive or negative consequences dependent upon whether he reached his goal (positive consequences: he could take the ball out to play and show his chart to his teacher, negative consequence: he could not take the ball out to play the following day). Results are that his "fighting on the playground" has not occurred during the last two weeks.

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Mary Kralik, Elementary Counselor
Clover Park, Washington

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Evaluating Teachers

The Washington State legislature through legislative act has made it
mandatory that all certified personnel be formally evaluated at least
once each year. To enable the principal to effectively conduct a formal
evaluation and to help to cause teacher improvement, the principal used
the "well dones"-"opportunities for improvement" method for individual
conferences. Communications were opened-up with the teachers which
permitted the principal to have more effective communications and re-
lationships with his teachers. Teaching changes occurred through the
evaluation by: (1) determining the strengths and limitations of the
teacher and (2) the teacher and principal together developed a specific
course of action that would enable the teacher to begin to change some
of the "opportunities for improvement", i.e., (A) a first grade teacher
developed a program for the more able student to help the less able (B)
a third grade teacher significantly improved her penmanship program, (C)
a sixth grade teacher established a phonics program. All teachers within
the school have been involved in this evaluation program and the principal
says: "They seem apprehensive at the beginning of the conference but by
the end they feel good about (1) the interview and (2) a specific plan of
action to work on. At the end of an interview I had yesterday the teacher
said 'gee this is fun--let's do it again'. I think she summed-up how the
teachers feel about this evaluation method".

> Bruce Philbrick, Elementary Principal
> Puyallup, Washington

Evaluating Staff

A "well dones" - "opportunities for improvement" conference was held with
a consultant who was close to being removed as a consultant. The con-
sultant in question discussed his "opportunities for improvement" with
several other people and developed an action plan to overcome them. A
year long in-depth self-improvement program including (1) practice and
(2) feedback evaluation, has developed this person to be one of the most
promising consultants.

> Dan Kralik, Consultant, Intermediate School
> District 111

FLANDERS' INTERACTION CATEGORIES *

Table VIII

TEACHER TALK		1. _Accepts feeling:_ accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting and recalling feelings are included.
	Indirect Influence	2. _Praises or encourages:_ praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head or saying "uh huh?" or "go on" are included.
		3. _Accepts or uses ideas of student:_ clarifying, building, or developing ideas or suggestions by a student. As teacher brings more of his own ideas into play, shift to category five.
		4. _Asks questions:_ asking a question about content or procedure with the intent that a student answer.
TEACHER TALK		5. _Lectures:_ giving facts or opinions about content or procedure: expressing his own idea; asking rhetorical questions.
	Direct Influence	6. _Gives directions:_ directions, commands, or orders with which a student is expected to comply.
		7. _Criticizes or justifies authority:_ statements, intended to change student behavior from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing, extreme self-reference.
STUDENT TALK		8. _Student talk-response:_ talk by students in response to teacher. Teacher initiates the contact or solicits student statement.
		9. _Student talk-initiation:_ talk by students, which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category
		10. _Silence or confusion:_ pauses, short period of silence, and periods of confusion in which communication cannot be understood by the observer.

* See Edmund Amidon and Ned Flanders, _The Role of the Teacher in the Classroom._ Minneapolis: Paul S. Amidon and Associates, Inc. 1963 - for an explanation of the Flanders' Interaction Analysis system.

CONTENT ANALYSIS

by John Hansen
University of Oregon

One instrument, one checklist or one system is not sufficient to encompass all the varied types of teaching acts; consequently, a number of different instruments focusing on different aspects of teaching should be in the supervisor's repertoire of tools. One aspect of the teaching act where systematic observation procedures are less available relates to the quality of content. To meet this need, a thirteen point category system (see TableIX) has been developed for use by a supervisor to gather data about the quality and quantity of subject matter presented.

Several researchers in Education have developed systems for gathering data about the quality of classroom content (Marie Hughes, Gallagher and Aeschner, Hilda Taba), but these techniques are not adaptable for in-class supervision followed immediately by conferences. The category system delineated in Table IX has been developed principally around the work of Aeschner, Gallagher, and Taba. Close examination by people familar with their system will indicate that categories I - 4 represent both Cognitive Task I and Cognitive-Memory; that categories 5 - 8 approximate Cognitive Task II, Convergent Thinking (5,6), and Evaluative Thinking (7,8); that categories 9 - 10 represent both Cognitive Task III and Divergent Thinking.

The author readily admits that Content Analysis does not provide as thorough an examination as available through the use of the other systems as they were originally designed. It is his contention, however, that the system does provide enough information to enable the supervisor to be better prepared in conducting supervisory conference. Research proposals currently under examination by several funding agencies from various Oregon institutions of higher education will provide meaningful settings for the use of this system. It is being used at this time by supervisors in several Oregon communities.

TABLE IX

CONTENT ANALYSIS

Cognitive Task I	1. Seeks Information	Specific information is sought with no demand for any action other than presentation.
	2. Gives Information	Specific facts are given--most one word answers, dates, unexplained data, lists, etc.
	3. Seeks Labels and Groups	Naming, classifying, categorizing and grouping of information is sought.
Cognitive Task II	4. Gives Labels and Groups	Specific facts are classified, categorized, or grouped.
	5. Seeks Interrelationships	Requests for responses which explains or organizes data already known.
	6. Gives Interrelationships	Explanations or organization of information already presented.
	7. Seeks Inferences and Generalizations	Asks for comparison, contrasts, consequences, etc. which demand inclusion of information not already stated.
Cognitive Task III	8. Gives Inferences and Generalizations	Provides (specifically or through implications) comparisons, contrasts, consequences, principles, generalizations, etc.
	9. Seeks Predictions and Hypothesis	Requests to apply known information to situations in order to predict events, outcomes, etc.
	10. Gives Predictions and Hypothesis	Use of information and deduction to predict unknown facts, events, actions, etc.
Miscellaneous	11. Procedural Remarks	Those statements which are made in class which are intended as agreement, disapproval, management, reiteration, feeling, encouragement, etc.
	12. Focus	Those statements which are made to keep students working towards the proposed objectives.
	13. Non-verbal	All classroom activity which is non-verbal or does not contribute to the lesson (confusion or out-of-focus remarks).

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In order to use the system effectively, the supervisor should spend time reading materials prepared by Bloom, Guilford, Flanders, Amidon, Aeschner and Gallagher, and Taba. He must also become thoroughly familiar with the categories in Table IX. Content Analysis is used by the supervisor by tabulating a category number at least every three seconds during an observation which should last a minimum of twenty minutes. The number tallied is a symbol representing one of the categories and hence describes the activity observed during the time interval. Tallies are recorded in two vertical columns, one column for teacher involvement and one for student involvement.