ABSTRACT
        This paper argues that the technology of the systems
approach to instruction (using performance objectives) demands a
"rules" or structured organizational climate in which high
productivity will most likely result from detailed supervision. The
author focuses, albeit briefly, on performance as a function of the
interaction between supervisory style and organizational climate. He
argues that performance objectives are in integral of the systems
approach to instruction, which is a highly sophisticated process with
carefully defined logic and procedures. The introduction of
performance objectives and the concomitant systematizing of
instruction produces more structure and rules than is normally the
case in teaching, which therefore requires more detailed supervision.
Within this context, the paper (1) discusses the need for close
supervision in employing the systems approach to instruction, and (2)
outlines some of the essential elements in the supervision of
instruction using performance objectives. (Author)

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Supervision and Performance Objectives

by

Oscar G. Mink

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SUPERVISION AND PERFORMANCE OBJECTIVES

by

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November 1, 1971

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SUPERVISION AND PERFORMANCE OBJECTIVES[1]

by

Oscar G. Mink

Introduction

Plato criticized the Homeric scholar for using the epic poem to transmit knowledge in an advanced society capable of producing history in a written form. Public schools today promote for themselves much the same circumstances as a Homeric scholar in the days of Plato. They constitute an art form. Or, as Marshall McLuhan has commented, today's first grader suffers cultural shock when he enters the same classroom which so nobly served his grandfather.

Innovative educators, trying to break the many strangleholds of anachronistic practice, have turned with increasing frequency to the systems approach to instruction, performance objectives, and accountability models. This direction may well have merit, but the pathway to success promises to be rocky with teacher discontent and dotted with the pitfalls of student boredom, administrative confusion, and parental misunderstanding.

In addition, the knowledge base which would provide guidance to the concerned educational leader, while reasonably complete regarding the benefits of using performance objectives in developing accountability models, lacks adequate data regarding the critical dimensions of organizational climate and supervisory models as they affect faculty and student performance. What little information is available, in most instances, has yet to find its way to the pages of textbooks for administrators, and in some cases does not originate from educators or appear in the educational journals.

In writing this paper, I've chosen to focus briefly upon performance as a function of the interaction between supervisory style and organizational climate. I've taken the position that the use of performance objectives does not necessarily create an _innovative_ climate, but rather creates a _rules_ climate. My argument is that performance objectives are an integral part of the systems approach to instruction which is a highly sophisticated process with carefully defined logic and procedures.

The application of these procedures demands equally sophisticated supervisory processes.

My thesis is that instruction using performance objectives[2] demands a "rules" or structured organizational climate in which high productivity will most

[1] Additional copies may be obtained by writing to the author: Director, Senior College Division, National Laboratory for Higher Education, Mutual Plaza, Durham, N.C. 27701

[2] The general assumption of this paper is that instructor performance objectives are best stated in terms of student learning. Therefore, the paper is developed around the concept of the systems approach to instruction and all references to to performance objectives are references to behaviors which reflect measurable student learning.

likely result from detailed supervision. The introduction of performance objectives and the concomitant systematizing of instruction produces more structure and rules than is normally the case in teaching, and therefore requires detailed supervision. In this context, the purpose of this paper is two fold: (1) to discuss the need for close supervision when emplying the systems approach to instruction, and (2) to outline some of the essential elements in the supervision of instruction using performance objectives.

THE CASE FOR CLOSE SUPERVISION

Where we are

I assume that most of you are familiar with instruction which utilizes performance (behavioral) objectives. To vocational instructors, coaches, artists, and music teachers it's old hat. In addition, most of you have seen or worked with Keller programed instruction or some other variation of systems applications to instruction. Yet, because I have seen what is actually happening in our schools under the various guises of the systems approach to instruction, individualized instruction (II), the Keller plan (1968) competency based learning, mastery learning, programmed instruction, and computer-assisted instruction (CAI), I am concerned.

I believe that in most instances we have taken a highly refined and sophisticated process and inadvertently allowed it to degenerate to an oversimplified and generally ineffective process. We've lost the power and the promise of the process. To make matters even more difficult, we have many well-meaning "ego-involved" instructors or supervisors who have become pseudo-experts and have lost the humility required to find the assistance necessary to do a quality job.

Where we need to be

Systemmatically analyzing a body of conceptual material or some perceptual motor skill and identifying the significant behaviors involved requires real competence. For example, a compelling behavioral analysis constitutes a necessary requirement in quality instructioanl design and usually requires a team that posesses the skills of an applied behavioral scientist and a content specialist. Developing pre- and post-criterion-referenced tests may require a measurement specialist. In addition, development of the learning activities and sequences requires sophisticated and creative application of good pedagogy and media technology. It is unlikely that a single supervisor working with any single instructor, can do the job. But teams of skilled and motivated specialists have done superb jobs of meeting the technical demands of systematizing instruction.

THE NEED FOR CLOSE SUPERVISION

Organizational Climate and Supervisory Style

The Association for Supervision and Curriculum Development, in its monograph titled Role of Supervisor and Curriculum Director in a Climate of Change (ASCD, 1965) established the dimensions and complexity of the total social context in which supervision must occur. In their analysis of the total scene lined against the backdrop of (1) climates of change, (2) bases for decisions, (3) the emerging role of the curriculum leader, (4) competence in instructioanl leadership and (5) the interlocking roles of supervision and instructioanl-curriculum development, they identify three basic needs which supervisors and curriculum specialists must consider. These needs are:

1. The need to project a clear picture of specialized professioal functions;

2. The need to develop more adequate conceptual tools to carry out unique professional functions;

3. The need to cultivate openness to new experience.[3]
   (ASCD, 1965, p. 163)

The ASCD monograph stresses the importance of compatible organizational climate and the active support of the total educational community for developmental activity.

Two critical dimensions of organizational climate relate to: (1) the role-expectancies directed by the larger social organization towards the key actors and (2) the personalities of the key actors (see Mink, 1969). For supervision roles, the prime personality requisite is openness to experience, acceptance of role requirements, and personal adaptability.

In discussing development of programmed instruction, Green (Programmed Instruction: The 66th Yearbook of the National Society for the Study of Education) insists upon the observance of process as opposed to formula replication of existing instructioaal models. Successful production of quality instruction depends not upon mechanistic replication of existing models but upon a . . . "disciplined and critical application of principles to recurring phenomena to gain control of and to generate new insights." (Green, 1970, p. 64) Similarly, systems applications, starting with the development of performance objectives, requires disciplined application of principles in a rules environment, by open, mature, and adaptable

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[3]See Rogers, Carl R. Freedom to Learn, Columbus, Ohio: Charles E. Merrill Publishing Company, 1969.

supervisors, instructors, and other personnel. The supervisor in a systems environment would have to be highly disciplined as well as the kind of person everyone wants as a good neighbor.

The Frederickson Study

Frederickson (1968) established the importance of observing the inter-action between organizational climate and supervisory style. He observed the interrelationships between two different climates: rules and innovative, and two different administrative styles: detailed and global. The resultant effect upon productivity is depicted in Figure 1.

SUPERVISORY STYLE

	DETAILED	GLOBAL
RULES	High Productivity	Low Productivity
INNOVATIVE	Low Productivity	High Productivity

(left axis label: ORGANIZATIONAL STYLE)

Figure 1: Organizational Climate and Supervisory Style

The results indicate that high productivity resulted under two conditions: (1) a rules climate with detailed supervision and (2) an innovative climate with global supervision. Low productivity occurred when a rules climate was coupled with detailed supervision. A rules climate demands standard procedures and set rules. An innovative climate urges you to be creative and follow your intuition. Global supervision refers to general agreement on what's to be done but with little concern for the details. Detailed supervision means some type of step monitoring of activities.

For experimental purposes, Frederickson described extremes. In contrast, my sense of the discipline requirements of the development of meaningful performance objectives and consequent instructional design is that the technology itself creates a modified rules environment. In Figure 2, some process stages of instructional development are compared with my notion of the necessary organizational climate and supervisory style. In essence, the designing and conducting of learning activities may be the only two phases that would accommodate to an innovative climate and global supervision.

INSTRUCTIONAL PHASE	ORGANIZATIONAL CLIMATE	IDEAL SUPERVISION
Developing A Rationale	Rules	Detailed
Establishing Performance Objectives	Rules	Detailed
Designing Learning Activities	Innovative	Global
Pre-Assessment	Rules	Detailed
Placement of Students in Learning Activities	Rules	Detailed
Conduct of Learning Activities	Innovative	Global
Post-Assessment	Rules	Detailed
Revision	Rules	Detailed

Figure 2: Instruction Development, Organizational Climate, and Supervisory Style

Some Essential Elements in the Supervision of Instruction

Using Performance Objectives

Developing Performance Objectives

Figure 3 depicts a recommended supervision cycle. It is a process model in which the supervisor is depicted as a "coach" and counselor--monitoring, teaching, sharing, and listening. I don't visualize the process as superior-subordinate as much as I view it as being interactive, synergistic, and developmental and involving other educational specialists: school psychologist (behavior analyst and learning specialist), media specialist, measurement specialist, and content specialist as required. Some underlying assumptions of the model are: (1) rapport-building is a constant process; (2) mutual trust has been established; (3) all parties have been trained in the process. The cycle would be completed once or several times in each phase of the instructional development process set forth in Figure 2.

Bloom (1968), Johnson and Johnson (1970), Mayer (1968), and Popham (1967, 1970) provide excellent reviews of the elements and theory encompassed in the instructional system model in Figure 3. The focus of this paper is not what occurs in each parallelogram, but rather how one would approach supervision of such a process. The reader may want to refer to Herescher (1971) and Washburn (1971) for detailed clarification of the events occurring in the parallelograms.
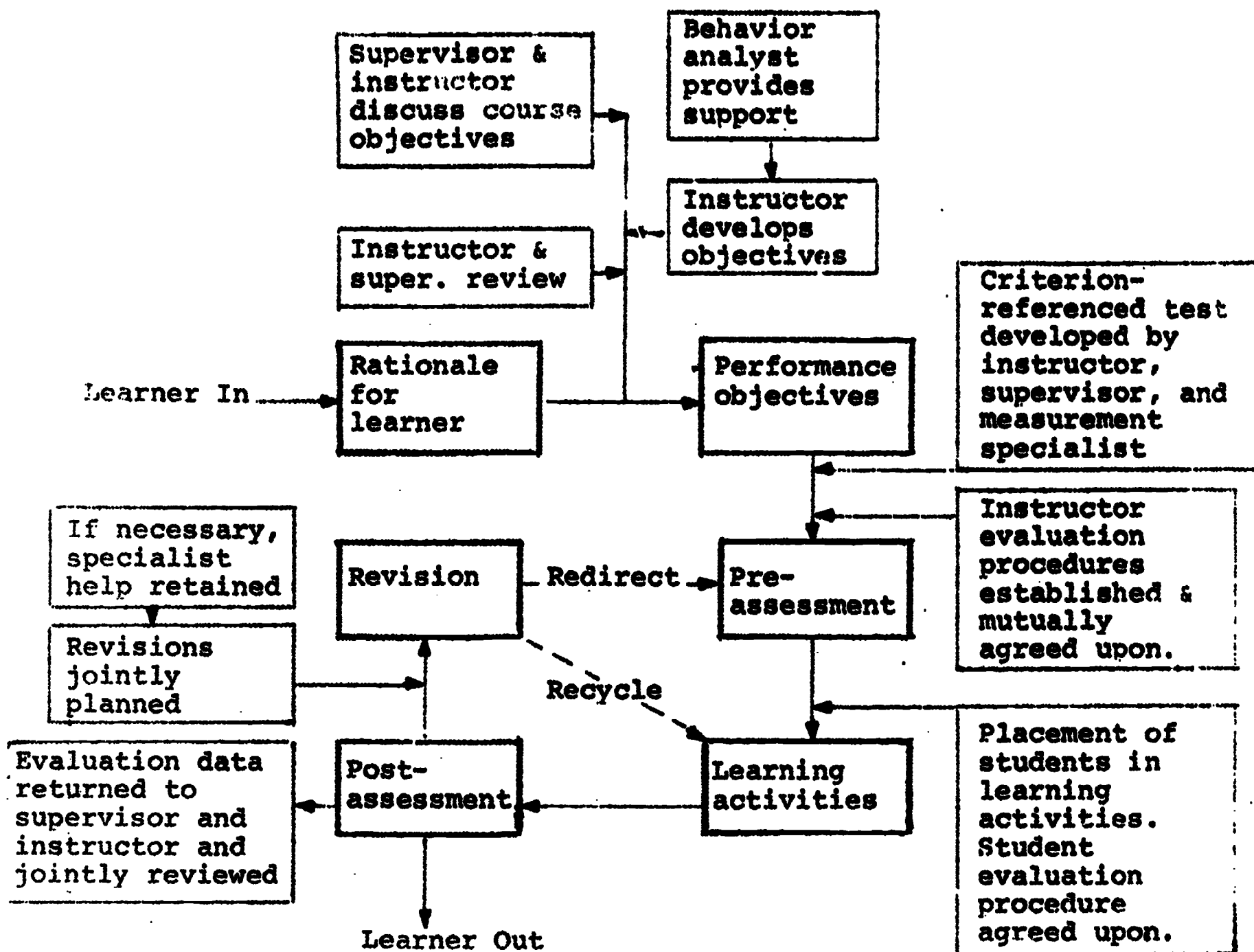
Figure 3: An Instructional System and Supervision Model[4] [5]

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[4]Herrscher, 1971, p. 4, displays the system model (heavily-outlined rectangles). The supervision activities (rectangles) are superimposed by the author.

[5]For a detailed explanation of the systems model see: Washburn (197⁚, pp. 39-51).

Supervision Team

As depicted, supervision is a team process involving relevant inputs from a variety of specialists. The responsibilities are jointly shared, with the instructor playing a key role in both development of the objectives and the subsequent evaluation and revision.

Measuring Achievement of Outcomes

In the process of measuring outcomes and evaluating performance objectives, attention needs to be given to the relative weights assigned to intended outcomes (objectives) as well as to some review and evaluation of other relevant outcomes (objectives) not predicted by the original design. The supervision assumption is that if the student hasr.'t learned the material presented then the instructional system needs revision and the instructor needs to improve his teaching.

Because the focus is student learning, evaluation takes two primary forms--formative and summative. Formative evaluation has as one of its primary purposes providing data for revision of separate learning activities and reordering learning sequences that may occur throughout the instructional process. The usefulness of the data for measuring student progress is of secondary importance. The performance ref;ected by different students may well have little meaning for evaluating student growth. Summative evaluation, on the other hand, occurs at the end of learning sequences and is aimed primarily at evaluating student progress against the objectives.

Context and Timing

The measurement of outcomes always occurs in a context. The context creates conditions which affect the quality of measurements taken. For example, if a typing teacher bases her performance evaluation upon the timed test administered to a student under classroom conditions, the data might be less meaningful than if the test were administered on-the-job. Timing is another critical variable. Students might give criterion performance immediately after massed practice, but perform below criterion six months later.

Multiple Measures

In the broader context of student learning, the measurement of criterion performance with respect to any objective raises many difficult issues. The most salient one has to do with the scope of the measurement. For example, criterion-referenced tests based upon the predetermined objectives may be narrowly focused and not reflective of overall student accomplishments in a subject field. By contrast, however, any content specialist could construct a test so broad in scope that a carefully planned and well-executed learning sequence would have little effect upon measured outcomes.

One solution to the <u>scope</u> dilemma is to use both criterion-referenced tests and standardized tests in measuring student performance. Conceivably, dual measures would reflect data on the scope problem as well as help establish the content validity of the learning sequence within academic discipline. The usefulness of dual testing would be predicted upon the quality of the standardized test involved as well as on the criterion-referenced test developed by the teacher. Hopefully the former would be selected with great care and the latter developed with the assistance of a measurement specialist.

In addition to tests, other measures[6] may be useful. For certain kinds of learning outcomes, observations, interviews, questionnaires, situational tests, and data already recorded and stored may be useful. At any rate, the sources of useful data are not limited to teacher-developed criterion-referenced tests. Whatever the measure, it must be compared to the originally stated objectives to see that it reflects actual achievement against objectives.

Evaluating Instructors

In measuring the instructor against the standard of student learning, at least three classes of variables need to be considered. These are: (1) the situational context within which the instructor was doing his teaching; (2) the process(es) followed by the instructor; and (3) the process(es) of evaluation used.

The Situational Context

Many variables can conceivably interfere with an instructor's performance. In the process of performance evaluation, student gains need to be considered against the backdrop of instructor pressures such as:

--total student load (300 as compared to 100)

--the nature of physical space available (40 students in a hallway?)

--instructional support (Is the library or learning resources center available to students?)

--the prerequisite student abilities and skills; e.g. reading level

--appropriateness of any required textbooks (superimposed by the state) for teaching previously agreed-upon learner objectives

--extra duties (lunch room, study hall, committees)

--teaching experience

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[6] For an excellent discussion of the selection of measures for evaluating programs see Fitzpatrick (1968).

--institutional climate (some schools are so charged with tensions
of various sorts that any degree of student learning is sometimes
miraculous).

Instructional Processes

The following questions are suggested for consideration by the instructor
and the supervisor during evaluation. These questions are suggestive, not
necessarily inclusive.[7]

1. Is there a statement of the rationale for learning the material
   in the unit?

2. Do the objectives include clear statements of what the learner
   will be able to do after successfully completing the unit?

3. Are there objectives which attempt to assess the learner's
   attitude toward the unit?

4. Are the prerequisite skills for the unit specified?

5. Are the subobjectives for the unit logically sequenced?

6. Is there a test with a scoring key or other information on what
   constitutes adequate learner performance?

7. Are the test items consistent with the stated objectives and
   entering skills?

8. Do the learning activities include:
   Small steps?
   Frequent practice for the learner?
   Immediate knowledge of results to the learner?
   Appropriate media?

9. Are the instructions clear to the learner?

10. Are the instructions clear to other instructors (if any)?

11. Are supplementary materials (if any) appropriate and complete?

12. Were data gathered on the achievement of learners who used the unit?

13. Were data gathered on the attitudes of learners toward the unit?

14. Are intended revisions consistent with the data gathered from
    learner comments and achievement?

[7]Questions are suggested by Barbara F. Washburn, Dean of Educational
Development, Mitchell College, Statesville, N.C. 28677

Evaluation Process

The supervisor needs to ask himself several questions about the evaluation process. One critical concern centers around who should do the evaluation. Some would suggest that a separation needs to be made between the person providing instructional assistance and the person evaluating for merit pay. Perhaps both processes should be followed. If a school were to adopt Lessinger's (1970) concept of the Management Support Group (MSG), one of the MSG functions could be to provide supplementary evaluation for merit purposes and independent referees for consideration of instructor grievances. Another source of evaluation would be the instructor. Appendix A is a suggested Preliminary Instructional Evaluation Checklist that could be jointly discussed in a coaching-counseling session. Appendix B is an Instructor Self-Evaluation Form and Appendix C is a student form for Instructor Evaluation that parallels Appendix B. These latter two forms provide for student feedback as well as a comparison between instructor concept of self as an instructor and student perception of instructor performance. These comparative data could be valuable for personal growth of the instructor if held to a non-threatening level of importance in the evaluation process.

In addition to student and instructor evaluation the learning resources center director (librarian?), assistant principal, and other specialists (psychologist, counselor, measurement expert) could provide useful data to the supervisor-instructor team. The validity of the data and the value of the process will increase as the persons concerned are able to use the process to provide for positive growth of the instructor. If the data obtained are used for punitive reasons, the sources of truly objective data will tend to dry up or become distorted.

A second question of what the primary focus of evaluation should be needs addressing. My position is that the principal source of data should be student performance on criterion tests. However, as outlined above, several sources of supplementary data are available and should probably be considered. Finally, the process(es) and timing, (the how and when) of evaluation are important. With respect to how, one could add the following to the coaching-counseling sessions: instructor self-reports, feedback from other specialists, student evaluations, and student achievements. In addition, personal interviews, follow-up questionnaires, and critical incidents such as cases of disciplinary action and parental feedback provide useful data. Timing, or the when, of evaluation also is critical. There is some danger that the evaluation process itself could interfere with student learning and instructor performance. Timing becomes a function of mutual agreement, common sense, and overall instructional design.

SUMMARY

The processes of supervision outlined on the preceding pages clearly demand exceptional and detailed supervisory effort. The position is that the technology of the systems approach to instruction necessitates a rules environment and detailed supervision. A concomitant position is that evaluation should be based upon student performance on instructional objectives. In addition, several process considerations are outlined along with specific suggestions regarding sources and methods of obtaining evaluative data.

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APPENDIX A

PRELIMINARY INSTRUCTIONAL EVALUATION CHECKLIST

by Barbara F. Washburn, Ed. D.

	Yes	No

A. Rationale

1. Do you provide a statement of the rationale for learning the subject matter in each unit? _____ _____

B. Objectives

1. Do you communicate to your students the specific objectives of each unit of instruction? _____ _____

2. Are records kept of student achievement on each objective? _____ _____

3. Do students help you generate course objectives? _____ _____

4. Do you have objectives which attempt to assess student attitude toward the subject matter of the course? _____ _____

C. Pre-test and Redirect

1. Do you employ a course pre-test to place students in the sequency of learning units? _____ _____

2. Do your individual units have pre-tests? _____ _____

3. Can your instructional format accomodate students who finish your course early? _____ _____

D. Learning Activities

1. Do your learning activities employ small steps? _____ _____
   frequent practice for the learner? _____ _____
   knowledge of results to the learner? _____ _____

2. Do you, through the use of media, incorporate a variety of stimuli in the instructional process? _____ _____

	Yes	No

3. Do you teach without doing most of the teaching; that is, is the student actively involved in directing his own learning?

4. Does your instructional format allow each student to proceed at his individual rate?

5. Does your instructional format allow you sufficient time to work with students individually?

E. **Post-test and Recycle**

1. Are post-test items keyed to specific objectives?

2. Are students allowed to take tests at any time?

3. Is there an established criterion for each unit that must be met to go on to the next unit?

4. Do students have the opportunity to restudy material, if they do not achieve unit criterion performance the first time?

5. Can you instructional format accomodate students who do not finish your course on time?

6. For students who do not achieve unit criterion performance, are there alternate instructional materials available for attainment of objectives:

F. **Revision**

1. Is information gathered on the achievement of the students who went through the unit?

2. Is information gathered as to student attitude toward the subject matter?

3. Do you have a systematic method of collecting and summarizing data to aid you in revising your instructional materials?

APPENDIX B

INSTRUCTOR SELF EVALUATION

by Barbara F. Washburn, Ed. D.

Circle one of the numbers or the letter to the right of each statement. Use this scale for rating:
5. Excellent   4. Above Average   3. Average   2. Below Average   1. Unsatisfactory   X Unknown or Undecided

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I would rate my:

1. Knowledge of the subject matter of the course I teach as   5 4 3 2 1 X

2. Ability to organize and present material effectively as   5 4 3 2 1 X

3. Willingness to answer student questions as   5 4 3 2 1 X

4. Enthusiasm for teaching as   5 4 3 2 1 X

5. Enthusiasm for my teaching field as   5 4 3 2 1 X

6. Ability to motivate students to do their best work as   5 4 3 2 1 X

7. Tolerance for differing opinions as   5 4 3 2 1 X

8. Willingness to concede errors as   5 4 3 2 1 X

9. Willingness to entertain student suggestions about methods, materials, or procedures as   5 4 3 2 1 X

10. Assignments as having value for students as   5 4 3 2 1 X

11. Assignments as being reasonable in amount and length as   5 4 3 2 1 X

12. Tests as being a realistic evaluation of the students' knowledge as   5 4 3 2 1 X

13. Fairness and impartiality of grading as   5 4 3 2 1 X

14. Promptness in grading and returning student assignments and tests as   5 4 3 2 1 X

15. Interest in students   5 4 3 2 1 X

16. Availability to students and adequacy of office hours as   5 4 3 2 1 X

17. Overall effectiveness as   5 4 3 2 1 X

My greatest strength (s) as an instuctor is (are):

The point(s) that I, as an instructor, would like to improve on is (are):

APPENDIX C

INSTRUCTOR EVALUATION

by Barbara F. Washburn, Ed. D.

Circle one number or letter to the right of each statement. Use this
scale for rating: 5--Excellent   4--Above Average   3--Average
2--Below Average   1--Unsatisfactory   X--Unknown or Undecided

How I see and rate my instructor's performance:

1. Knowledge of course subject matter as   5 4 3 2 1 X

2. Ability to organize and present material effectively as 5 4 3 2 1 X

3. Willingness to answer student questions as   5 4 3 2 1 X

4. Enthusiasm for teaching as   5 4 3 2 1 X

5. Enthusiasm for his teaching field as   5 4 3 2 1 X

6. Ability to motivate me to do my best work as   5 4 3 2 1 X

7. Tolerance for differing opinions as   5 4 3 2 1 X

8. Willingness to entertain student suggestions about
    methods, materials, or procedures as   5 4 3 2 1 X

9. Willingness to concede errors as   5 4 3 2 1 X

10. Assignments as being reasonable in amount and length as 5 4 3 2 1 X

11. Assignments as having value for me as   5 4 3 2 1 X

12. Tests as being a realistic evaluation of my knowledge   5 4 3 2 1 X

13. Fairness and impartiality of grading as   5 4 3 2 1 X

14. Promptness in grading and returning student
    assignments and tests as   5 4 3 2 1 X

15. Interest in students as   5 4 3 2 1 X

16. Availability to students and adequacy of office hours   5 4 3 2 1 X

17. Course content as being appropriate for my needs as   5 4 3 2 1 X

18. Overall effectiveness as   5 4 3 2 1 X