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ABSTRACT

This paper holds that the "supervisory" function should be basically one of teaching teachers rather than evaluation of teaching styles, with the consultant on teaching guiding a teacher in the systematic analysis and modification of his teaching performance through a systematic decisionmaking process. In the first half of this paper supervisory procedures are suggested for a new model which would serve this function of facilitating teaching. A theoretical approach to the analysis of teaching is discussed which includes analysis of self, learner, content, and conditions of learning. The operational systems which have been developed to categorize teaching into discrete behavioral acts observed in the classroom are described. The remainder of the paper analyzes supervisory procedures which have been effective in modifying teaching behavior in the desired direction. Specific supervisory skills required for various conference strategies are outlined: establishment of pre-conference set, provision of feedback, selection of focus, provision for discrimination training, provision of a model of teaching behavior, and provision of closure. The use of the microteaching sequence, of video-tape feedback as a common frame of reference, and of models of teaching behavior are all discussed with reference to their use in the teacher-supervisor conference format. [Not available in hard copy due to marginal legibility of original document.] (JS)

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EFFECTIVE SUPERVISORY CONFERENCES:
STRATEGIES FOR MODIFYING TEACHER BEHAVIOR

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EFFECTIVE SUPERVISORY CONFERENCES:
STRATEGIES FOR MODIFYING TEACHER BEHAVIOR

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Supervision is out! Evaluation is out! The following are in!

- (1) Teachers of teachers who serve as consultants on teaching and learning.
- (2) Systems and procedures for objectively coding, analyzing, and modifying teacher behavior.
- (3) Systems and procedures a teacher can use to analyze and modify his own teacher behavior with or without the assistance of a consultant on teaching.
- (4) An individualized, graduated induction of teacher (novices) candidates into professional teaching.
- (5) A continuous diagnosis of performance and prescription of training modules.
- (6) Facilities and time (within the professional day) for teachers to analyze and modify their teaching behavior.

Teachers of Teachers Versus Supervisors

Teachers have rejected the traditional concept of supervision. To many teachers it has been an encroachment upon their professional status. Many supervisors claim they are agents for the improvement of instruction while the teacher perceives them as evaluators who pose a threat to his security. It is easy to understand how this

has come about. Once or twice a year the supervisor visits the teacher's class, completes a lengthy checklist (containing many items which are superficial and irrelevant), calls a short conference at which he presents his evaluation for a signature (after which it will be filed), and turns to the teacher to ask if he has any questions.

Another approach often used is to make a short visit to the classroom after which the supervisor abruptly leaves or only offers a quick compliment or suggestion and reappears several months later for a similar visit.

Rather than observing a teacher's global teaching act (artistry) and making apriori judgements of its merit, a consultant on teaching (teacher of teachers) guides a teacher in the systematic analysis and modification of his teaching performance.

In order to serve this function, a new model is needed which facilitates teaching. The following procedure is suggested.

- (1) Observe and code the teaching performance.
- (2) Provide feedback to the teacher.
- (3) Analyze the teaching behavior, patterns, and strategies.
- (4) Conduct training.
- (5) Provide for practice of new behavior.
- (6) Make follow-up observation--coding.
- (7) Analyze the new behaviors.
- (8) Repeat the cycle as necessary.

Teaching: A Science or An Art

As we scrutinize "supervisory" practices, we must also take a close look at its "content"--teaching. Let us reflect on a perennial but unresolved question. Is teaching an art or a science? The futility

of such a question is evidenced by the fact that the arts themselves are subject to an inherent order and lawfulness. For example, the composer uses the elements of music, rhythm, melody, harmony, etc. and combines them in his individual and subtle way to create a work of art. The teacher in a like manner uses certain skills to effect artistic variation in accordance with his own individuality.

There are many factors which influence the way a teacher teaches. Some are inherited at birth, some are learned as a young child, and still others reflect one's cultural, psychological, and sociological orientation. Many of these factors can not be subjected to scientific scrutiny. The supervisor's major responsibility in this domain is to sensitize and create an awareness, rather than to prescribe procedures for modifying behavior.

Because of these "given" factors, teacher educators are obligated to provide a teacher with the opportunity to acquire as many teaching behaviors and strategies as possible. In this way teaching becomes more humanistic. Unlike a machine, he is free to choose from a full repertoire of teaching alternatives those which are compatible with his individual makeup, the structure of his subject, and the unique learning situations he finds in a classroom. This is the "content" for teaching teachers.

Analysing Teaching Behavior

In order to accomplish specified learning objectives, a teacher must develop and implement instructional strategies. The development of these strategies must result from reasoned professional decisions. This is the heart of teaching. It separates the teacher from the "man

in the street" and earns for him the professional status he seeks. Therefore, the role of the consultant on teaching is to guide teachers through a systematic decision-making process. (See Figure 1.)

The first phase, defining general and specific learning objectives, is a prerequisite to subsequent analysis. Objectives need to be constructed which specifically define the behavioral outcomes for pupils. (Walbesser, 1968)

The second phase consists of analyzing relevant factors influencing the construction of teaching strategies. The intent of this paper is to emphasize the importance of a complete analysis of each factor in the decision-making process.

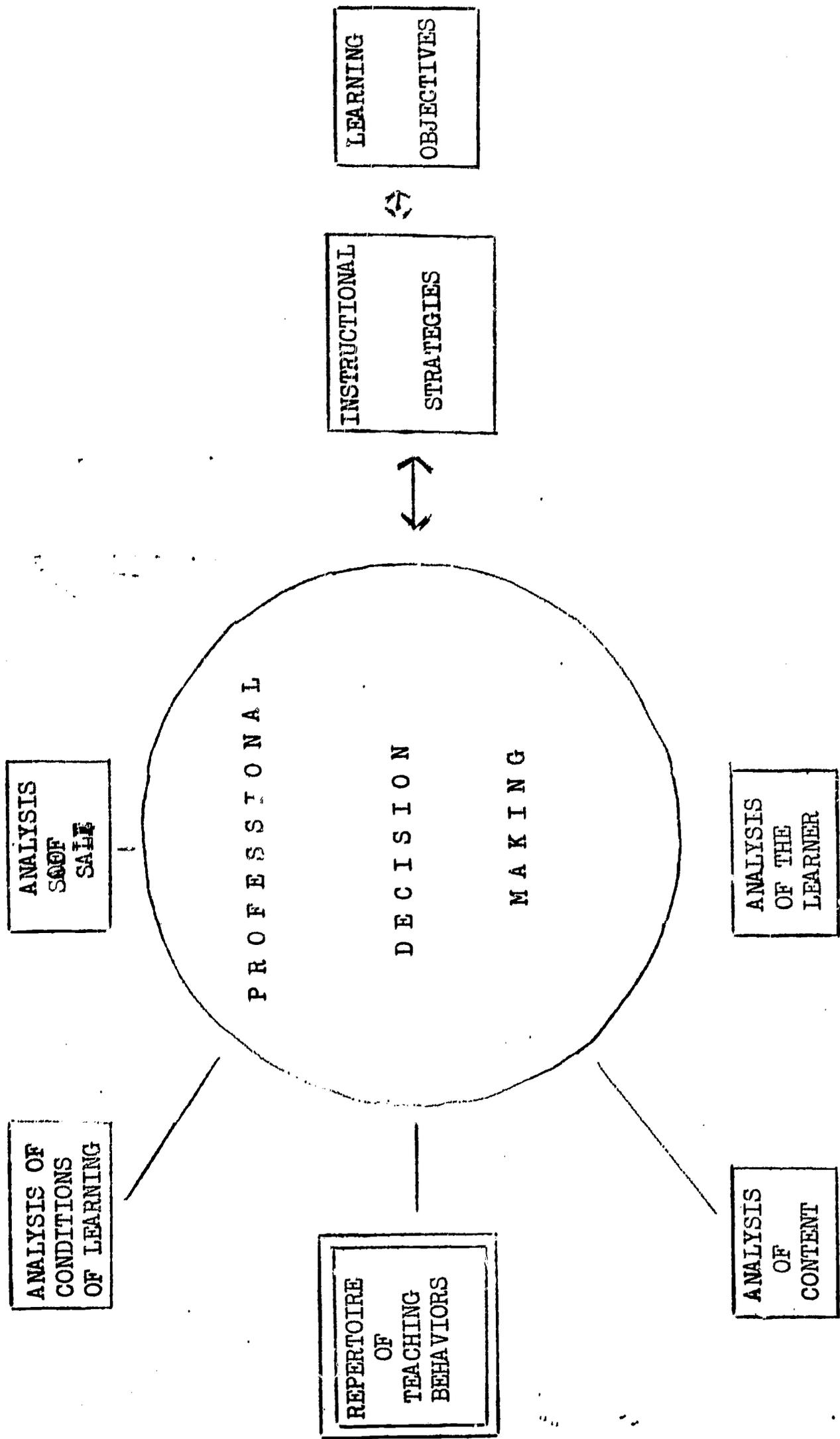
In the following pages, the systems for analysis of teaching will be discussed in detail.

Analysis of self. A teacher needs to be able to clearly identify his psychological (personality), sociological, and cultural orientation as each will not only affect the construction of teaching strategies but also their implementation in the classroom.

Analysis of the learner. Each pupil is unique in his ability to learn, his repertoire of experiences, his socio-economic and cultural background, and his physiological and psychological makeup. Thus, in essence, a teacher's instructional strategies must be flexible and comprehensive to facilitate learning for each individual pupil.

Analysis of content. The inherent nature (structure) of each subject matter area possesses both unique and common elements. In the process of constructing instructional strategies, the teacher analyzes the uniqueness of the subject matter and selects and employs

ANALYZING TEACHING



ART

SCIENCE

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relevant behaviors and patterns. For example, the strategies for teaching a mathematical concept and typing skills would be significantly different.

Analysis of conditions of learning. Instructional strategies arrange the various conditions for learning which are external to the learner. These conditions include such things as prerequisite concepts, facts, etc., requirements for retention, specified stimuli for subsequent learning, and opportunities for knowledge generalization. (Gagne, 1965)

All of the foregoing analyses are of little value if a teacher does not possess a full repertoire of teaching behaviors (skills). It is readily apparent that the effective teacher must construct and implement many different strategies to accomplish the learning objectives in each unique teaching-learning situation.

Therefore, the next question to be considered is, "How can we analyze teaching behavior?" Gage (1964) identified four ways the teaching act can be analyzed.

1. The Types of Teaching Activities

- (a) explaining
- (b) guiding
- (c) making assignments, etc.

2. The Kind of Educational Objectives.

- (a) affective
- (b) cognitive
- (c) psychomotor

3. The Dimensions of Teaching which are the Obverse or

"Minor Image" of Learning

- (a) motivation-producing
- (b) response-eliciting

4. The Type of Teaching Derived from Families of Learning Theory

- (a) conditioning
- (b) cognitive
- (c) imitation

Gage (1963) presents the following examples: The teacher activity is explaining and the educational objective is from the cognitive domain; ability to extrapolate trends beyond the given date. The perceptual part of the learning process is chosen which corresponds to the teacher's function of directing the student's perceptions to the salient part of his environment. In the present instance, this consists of the kinds of trends in data that we want him to learn to extrapolate. The family of learning theory is the cognitive restructuring approach (learner arrives at knowledge and understanding by perceiving the situation, the problem, before him and then rearranges it through central cognitive processes in a way that yields meaning of a rational, logical, consistent kind.)

The foregoing is not an operational system but a theoretical approach to teaching which serves as a useful frame of reference for the topic. The remainder of this paper deals with the analysis of teacher activities (behaviors) as observed in the classroom.

Several systems have been developed to categorize teaching into discrete behavioral acts. The Flanders system provides categories for classifying the verbal behavior of the teacher and resultant verbal behavior of the pupils. The ten category system has two major divisions: statements which have a direct effect (minimizes a student's freedom to respond) and indirect effect (maximizes the student's freedom to respond) on pupil behavior.

The direct category is subdivided into lecturing, giving directions, and criticizing or justifying authority; and the indirect category is divided into accepting feeling, praising or encouraging, accepting ideas, and asking questions.

Operationally, an observer or a teacher using a tape recording of his own teaching categorizes the classroom verbal interaction every three seconds. The tallies are paired and recorded in a matrix which reveal patterns of teacher influence.

With the matrix before him, the teacher can assess his teaching strategy in terms of his own objectives and determine areas in which he wants to improve. (Amidon & Hough, 1967)

Following the identification of the dimension of teaching to be improved, specific teaching behaviors within that area are identified. For example, the teacher studies the matrix and decides he wants to increase the involvement of students. That is, his interaction matrix shows great disparities in student talk and/or asking questions.

Next, the supervisor assists the teacher in the identification of behaviors related to pupil participation and asking questions. The following list is exemplary of the specific teaching which might be identified.

1. Asking fact-eliciting questions.
2. Asking higher-order questions.
3. Asking probing questions.
4. Providing reinforcement of a student response.
5. Etc.

Each of the above teaching behaviors are subject to further specificity before their implementation in the classroom.

For example, the teacher might use any of the following to provide a reward for a pupil:

1. Non-verbal techniques used by the teacher.
 - (a) smile
 - (b) move toward the student
 - (c) write his response on the board
 - (d) nod his head in approval

2. Verbal techniques used by the teacher.

- (a) use such words as "fine," "good," "excellent."
- (b) repeat the student's answer.
- (c) tell him he has made an important contribution to the class.

In a like manner, the specific behaviors relating to asking probing questions can be identified.

1. Asking probing questions.

- (a) ask pupils for more information.
- (b) ask pupils to rationally justify his response.
- (c) refocus the pupil's or class's attention on related issues.
- (d) prompt the pupil or give hints.
- (e) redirect the question to another pupil.
- (f) ask other students to respond to the first pupil's answer.

It is posited that for each area of the interaction matrix a similar list(s) can be developed.

Some other teacher behaviors which have been identified in the Stanford studies are listed here: (1) pre-instructional set, (2) varying the stimulus situation, (3) establishing appropriate frames of reference, (4) student initiated questions (5) achieving closure, (6) using planned repetition, (7) using silence, (8) using non-verbal cues, (9) recognizing and obtaining attending behavior, etc. Space does not permit a complete list of teacher behaviors. A more detailed list is available from the author.

Modifying Teacher Behavior

In the final analysis the measure of success of teaching teachers is their behavior in the classroom. The remainder of this paper is devoted to those procedures which have been effective in modifying teaching behavior in the desired direction.

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Conference Strategies

As supervisors assume the role of teaching teachers, it becomes readily apparent that they must develop skills congruent with this new model for supervision. These skills are in many instances similar to those employed by the classroom teacher.

It is not the purpose in this paper to present an exhaustive list of skills or the ultimate conference strategy. The strategy presented below includes specific supervisory skills a supervisor can use to effect the specified modification in teaching behavior.

1. Establish Pre-Conference Set--Orient Teachers to the Conference

If this is the first time the teacher has been video taped, he will be anxious about seeing himself. It is usually helpful to suggest that he view a portion of his teaching and have him respond to a question such as "Did you think you looked like that?" The supervisor should reassure him that his "cosmetic" concerns are due to looking at himself for the first time in this context and that the television tends to intensify minor things. This should help alleviate anxiety and permit a more productive conference.

During this part of the conference, the objective is to obtain the teacher's recognition of the need for a behavioral change. This may be accomplished by the following:

- (a) The supervisor asks the teacher to state the learning objectives for the instructional period. Using probing questions such as "Could you be more specific?" or "What, specifically, are the pupils able to do at the end of the period?" or "Can you put the objective into terms of pupil behavior?" guide the teacher in his delineation of the specific objectives.

(b) The supervisor asks the teacher to reflect on his teaching. The teacher is then asked to recall those aspects of his teaching that went the way he had planned and subsequently if anything did not turn out the way he expected it would. During the course of answering these questions, the teacher will probably identify one or two problems he thinks he encountered. The supervisor should point out that he can confirm this when he views the video tape.

As the teacher reflects on his performance, he should be asked to relate this to the learning objectives already stated as well as to consider how his instruction is affecting pupils.

2. Provide Feedback

The supervisor provides objective feedback to the teacher. This feedback may be in the form of a graphic summary of selected aspects of teacher-pupil behavior and/or patterns of teaching. Although video and audio tape provides feedback, it is fleeting and is probably best used as a training procedure.

3. Select a Focus

(a) The supervisor guides the teacher in diagnosing his teaching performance in terms of his learning objectives and in analyzing the different factors in decision making presented earlier in this paper.

(b) The supervisor guides the teacher in prescribing an alternative strategy or specific behavior to accomplish specified learning objectives. This is accomplished by asking the teacher to consider each factor in arriving at the strategy to be implemented in his next teaching encounter.

(c) The supervisor guides the teacher in determining specific teaching behaviors he needs to acquire and/or refine to implement the prescribed strategy.

After the behaviors are identified, a training protocol is prescribed by the supervisor.

4. Provide Discrimination Training

During this part of the conference, the supervisor teaches the teacher the specified teaching behavior and where to incorporate it in his instruction.

The training is provided in the following way:

(a) The supervisor views a video tape of the teacher's performance with him. As the tape progresses, the supervisor reinforces the teacher each time he uses the selected behavior or its approximation. The supervisor can either talk over the tape or stop it for increased emphasis. He can also replay certain sections repeatedly. Specifically, the supervisor might say, "Note how many pupils responded to your question this time." "Note how much more analytical that response was."

(b) The supervisor selects several instances when the teacher used the specified teacher behavior and asks him to compare and contrast the result of his behavior in each instance. The teacher should also be asked to compare and contrast his responses (behavior) to various cues of the pupils.

(c) The supervisor prompts the teacher by pointing out, as the tape progresses, where he can incorporate the specified behavior into his instruction. One technique used is to stop the tape and

ask the teacher, "What would you do at this point?" or "How would you respond in this situation?"

5. Provide a Model of the Teaching Behavior

After the teacher views his own performance, show him a "model" of the specific teaching behavior (see the discussion in the following pages) and point out how the behavior is being used.

6. Provide Closure

The supervisor concludes the conference by obtaining the teacher's commitment to practice the new behavior.

(a) The supervisor summarizes the points made by the teacher during the conference.

(b) The supervisor summarizes and reinforces instances in the initial teaching when the teacher used the selected teacher behavior.

(c) The supervisor constructs a simulated situation and asks the teacher to respond to it.

(d) The supervisor asks the teacher to delineate how he will incorporate the new behavior into his next teaching encounter.

Micro-Teaching

Although micro-teaching (Allen & Bush, 1963) was first developed for preliminary experience and practice in teaching and as a research vehicle to explore training effects under controlled conditions, the concept can be of service to experienced teachers as a means of gaining new information about their teaching in a relatively short time.

If a teacher wishes to try a new approach in a particular lesson, he must wait until the following year to test alternatives to that lesson. In micro-teaching, the teacher can experiment with several alternatives with a limited number of students each time, with the opportunity for immediate evaluation and additional trials. Following this limited application, the plan can then be presented to the classroom. In this way, teachers may experiment with new methods and new content without the risk of defeating student learning and with much more satisfactory timing.

Micro-teaching is real teaching which is scaled down both in time and size of class. A micro-teaching sequence consists of preparing and teaching a 5-20 minute lesson to 1-5 students. The students are of the same age, ability, etc. that he normally teaches. Immediately following this initial teaching session, the teacher reviews his performance. He may make a self-evaluation or invite his colleagues, principal, or supervision to join him in a discussion of the lesson. Although videotape is not essential, it proves a valuable asset during the review.

The videotape recording of the teaching episode is played back during the conference following each teaching experience. The videotape provides a common frame of reference for the discussion rather than relying on recall alone.

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As the tape progresses, the teacher notes instances of the desired teaching behavior and may stop the tape to determine where he can increase or implement certain behaviors. The videotape may also be reversed to view certain sections repeatedly, if the situation demands.

Following the conference, the same lesson is taught to a different group of pupils. The teacher can now make an immediate assessment of revised or different teaching strategies.

The micro-teaching sequence proves most effective when one or two teaching techniques are selected for emphasis. Current trends to ungraded and modular scheduled classes create different teaching and learning situations. Many of these situations call for increased use of both small and large group instruction. Likewise, recent curricular developments such as the School Mathematic Study Group and the Biological Science Curriculum Study have resulted in different subject matter content and methods of teaching.

Many teachers have expressed a desire to study, develop, and refine teaching strategies in accordance with the expanding demands on teaching.

Micro-teaching provides this opportunity. For example, a teach-conference-reteach sequence might focus on the verbal behavior of a teacher in a "student-centered" small-group discussion or the inductive questioning technique in a student's self-discovery of a scientific principle. Other teaching skills such as nonverbal teaching behavior, recognizing and obtaining attending behavior, closure (summarizing), reinforcement, etc., may also be selected. Logistically, micro-teaching is conducted outside a teacher's regular class schedule. Released time is often arranged by providing a substitute to cover the classes for teachers while they are micro-teaching. A teacher can also participate in micro-teaching after school or at the secondary level during a

"free period." It may be desirable to schedule the sequence when all the teachers in a department or team are available. Students are often provided by the Future Teachers Association or other student service organizations. It is also feasible to have 8-10 students come to school on special "in-service" days or during a workshop in the summer months. (See Young & Young, 1968)

Videotape Feedback: A Common Frame of Reference

A supervisor and teacher discuss a lesson after class. Many times they do not share the same mental or visual-auditory frame of reference. Not only do they typically have somewhat differing attitudes about the content which should be taught particular students in the class but also they see and hear different things as they are in different parts of the classroom. This lack of a common frame of reference complicates an already difficult task. But, videotape enables us to obtain a simple and objective record so that when two professionals sit down together, they are seeing, hearing, and talking about the same phenomena.

The teacher may receive the best criticism and advice from a respected colleague, someone the teacher chooses to help him. One reason why this has never been practiced extensively is that it has not been feasible. Most teachers are teaching at the same time; however, if a video recording has been made, the two can sit down and view it at their convenience. Besides giving them a common frame of reference, the important parts of the tape can be played over and over as often as desired. There is great power for improvement in this type of vivid feedback and focused critique, and the very fact that colleagues are sitting down together and discussing professional issues is of definite value.

There are those who would not be comfortable viewing tapes of their teaching with their colleagues. For them, simply watching their own performance may suggest all sorts of alternative approaches and ways to strengthen their teaching. Videotaping, or any other means of upgrading instruction, will have little chance of success if it is forced on teachers. The videotape should simply be made available to the teacher; whether or not he wishes to have his teaching performance taped is a decision the individual teacher should make.

Portable television recording units are utilized in microteaching and classroom recordings. This unit is self-contained with all the components installed in a cart mounted on casters. The operation of the unit has been simplified to the point that a sixth-grade student can roll it into the classroom and prepare it for recording in a few minutes. Due to the absence of hanging microphones, multiple cameras, and extra lighting, the recording procedure is relatively unobtrusive in the classroom. A complete unit can be assembled for less than \$2,000. Detailed specifications and plans are available from the author. (Young & Pinney, 1968)

Models of Teaching Behavior

Supervisors have traditionally urged teachers to observe exemplary teaching. Typically a teacher would visit a "master" teacher's class or view a film or videotape recording of the class. However, due to the difficulty of observing fellow teachers, many teachers, especially beginning teachers, are denied the opportunity of seeing skillful teachers in action. The videotape can remedy this. For instance, if a beginning teacher is having trouble with his questioning techniques, he could view a tape which demonstrates questioning skills. Or, if a group of English teachers want to see how modern linguistics could be applied

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to slow learners, a tape of a skillful teacher demonstrating this would be a very good focus for discussion.

Likewise, as teachers view recordings of their classroom performances, they will no doubt discover aspects of their teaching which they would like to improve. For example, a teacher might decide he needs to improve his ability to obtain student participation. He could then view a "model tape" featuring a teacher demonstrating how to involve students in a lesson and subsequently attempt to incorporate these skills in his own teaching. This sequence of viewing one's own performance and contrasting it with a model tape could be repeated until the teacher is satisfied.

The modelling protocol described here differs significantly from conventional practices. Instead of sending teachers to observe the "model" performance, it is brought to them on videotape. The model of "specific teaching behavior" is focused on a specific teacher behavior rather than the typical unfocused classroom observation. The model is a constructed situation which emphasizes a specific teaching behavior while other potentially distracting stimuli are minimized or deleted.

Although such model tapes are available, it is suggested that members of the faculty prepare models of different behaviors for each other to view.

Research by the author (1968) has shown that a teacher viewing the model with an auditory and visual focus on the videotape contingent to the occurrence of the desired behavior can effect a significant modification of his behavior.

Classroom Supervision

Experience with micro-teaching has prompted a revision of the classroom observation and teacher-supervisor conference format.

(Allen & Ray, 1966)

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Traditionally, the supervisor would make a lengthy visit and present the teacher with a long list of suggestions for improvement in the subsequent conference. This sequence of events took place somewhere near the beginning of the school year and again near the end.

The new model for supervision calls for a brief visit (10 minutes), a conference focused on a specific behavior, a follow-up visit the next day or period, and the entire sequence of events repeated several times throughout the school year.

This new format is more compatible with what we know about the psychology of learning and requires no more time on the part of the supervisor than conventional supervisory practices.

Individualized and Graduated Induction of Novice Teachers

The novice teacher's induction into the teaching profession is often accompanied by considerable trauma, discouragement, and failure. This is due in large measure to the sudden immersion into the complexities of teaching a sophisticated concept to thirty or more pupils, each manifesting different psychological, cultural, and sociological orientations. The way the novice has been inducted into teaching would be analogous to training airline pilots if they took up a full load of passengers the first day after pilot school.

A new model for teacher education consists of a series of graduated experiences such as focused observation, micro-teaching, simulation, student teaching/internship, etc. prior to full professional responsibilities. The teacher candidate's progress through each phase of his experience is based on the continuous diagnosis of performance and resulting prescription of training modules. (Young & Young, 1968)

Summary

The thesis of this paper is that the "supervisory" function should be basically one of teaching teachers rather than evaluation of teaching styles.

Interaction analysis and specific teaching behaviors provide objective criteria for analyzing the performance of a classroom teacher. Due to the specificity and objectivity of the criteria, it is more readily perceived as valid by teachers irrespective of their teaching area.

Micro-teaching provides the experienced teacher the opportunity to construct a real teaching situation in order to develop new teaching skills and/or to refine present ones. The teach-conference-critique sequence provides for either self, colleague, or supervisor critique. The reteach phase permits the immediate trial and appraisal of revisions in teaching strategy.

Videotape feedback is unique to the extent that the teacher can review his own teaching performance using the objective, audio-visual record provided by the videotape. Likewise, teacher-supervisor conferences are based on a common frame of reference rather than on the subjective record and memory of each.

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