Split-Screen Videotaping:

The Genie in the Bottle

William Moritz and JoAnne Martin-Reynolds

Videotaping has become an accepted procedure for assessing teacher performance and providing feedback for self-analysis. Split-screen videotaping takes the process one step further.

Split-screen videotaping with the teacher on one half of the screen and the students on the other half, as opposed to single-screen videotaping, is a powerful vehicle that provides the teacher with multidimensional feedback for self-analysis of the structure of the lesson as well as the multitude of interactive behaviors, verbal and nonverbal, which are continuously taking place in the classroom. The split-screen concept was implemented in the Maumee City Schools in Ohio as an alternative to traditional evaluation in the improvement of instruction in 1971 using ESEA

Title III funds. After receiving national validation in 1973, the process was included in the state of Ohio adaptation network. In the following three years, approximately two million dollars were provided for 149 Ohio districts to adopt the process. Eight additional districts implemented the process using discretionary funds from the United States Office of Education.

The developer district, Maumee, now has 75 percent of the instructional staff using the process. It is estimated that over 8,000 teachers in Ohio are presently using the split-screen videotaping process in analyzing their classroom instruction.

A variation of the model was used in preservice education at Bowling Green State University, Bowling Green, Ohio, in a study assessing the effects of a self-evaluation model using split-screen videotape feedback with student teachers majoring in elementary education. The model was tested to determine its impact on focusing the attention of participants on

three factors: self, teaching, and students. A significant difference was found in shift of focus away from self on the part of experimental subjects, indicating that the model influenced the tendency to focus on self characteristics, thereby causing subjects to redirect attention toward teaching and student reaction.[1]

Structuring the Feedback Process

Research conclusions and recommendations concerning videotape feedback have been generally favorable, even in those cases where no significant differences have been found between playback and control groups.[2] Studies report that the combination of microteaching, interaction analysis, and videotaping has been used successfully to modify and change behaviors in both preservice and inservice teachers.[3] Some researchers, although reporting no significant changes in skills or behaviors on the part of the subjects, nevertheless enthusiastically recommend videotaping.[4]

The critical component in modifying instructional behavior seems to be feedback of teaching episodes that the teacher can accept as valid. Perhaps Ned Flanders stated the case for feedback best when he wrote:

"Statistically significant relationships between training assessment measures and subsequent ratings of teaching performance during the first year indicate that intense behavioral training involving frequent and immediate feedback, in combination with attention to instructional theory, does affect subsequent teaching performance constructively."[5]

In our experience, feedback derived from the traditional "report card" evaluation model used in superior/subordinate relationships has not consistently met the needs of the profession due to ego barriers and defensiveness. Tuckman suggests that feedback of classroom activity that teachers can accept as valid is primary in reducing ego stress and in using an individualized clinical approach to improve instruction.[6] Figure 1 demonstrates this concept.

Figure 1. Self-Assessment Model
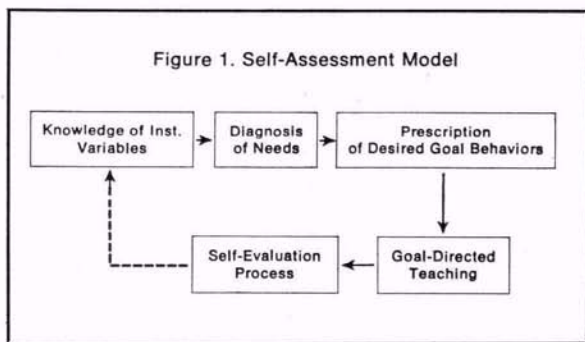
It is unrealistic to expect that all teachers will be able to conform to an exact model based. However, there is considerable potential for a model that is flexible enough to allow teachers to identify and build on their instructional strengths and, at the same time, eliminate less productive behaviors from their repertoires.

How much videotaping must teachers engage in to make a difference in their awareness levels and function within the parameters of the theoretical model? As a result of extensive field experience and feedback from teachers, 20 minutes of videotaping, three or four times the first year about a month apart, with lesser frequency in ensuing years, is suggested. This, of course, is contingent on individual differences and levels of acceptance of self, as well as other human variables.

Acceptance of the videotaping self-analysis process on a statewide basis in Ohio is evidenced by the self-report data in Figures 2, 3, 4, and 5. These data were collected from a sample of teachers from rural and urban school districts over a three-year period. Responses were anonymous and voluntary. Variation in the number of responses to the various items is due to the number of adaptation projects in operation at the time.

The responses suggest that when teachers who wish to grow professionally use the self-assessment model, they do see their involvement in a positive way.

Figure 2.

At this point, how do you feel about being involved in the Teacher Self-Evaluation Project? (Responses were obtained one month after the second videotaping.)

Very Positive	Positive	Somewhat Positive	Negative	Very Negative
234	519	264	36	4

[1] JoAnne Martin. "A Study of the Effects of A Self-Evaluation Model on the Focus Reaction of Student Teachers During Split-Screen Videotape Feedback." (Ph.D. dissertation, Bowling Green State University, 1977).

[2] Ibid., p. 470.

[3] Walter Borg, "The Minicourse as a Vehicle for Changing Teacher Behavior: A Three-Year Follow-Up." Journal of Educational Psychology 3 (December 1972): 572-79; F. J. McDonald and Dwight Allen, Training Effects of Feedback and Modeling Procedures on Teacher Performance (Bethesda, Md.: ERIC Document Reproduction Service, ED 017 985, 1967).

[4] Fuller and Manning, op. cit., p. 469-528.

[5] Ned A. Flanders, "Teacher Effectiveness." Classroom Interaction Newsletter, December, 1969, p. 31.

[6] Bruce Wayne Tuckman, "Feedback and the Change Process," Phi Delta Kappan 57 (January 1976): 341-44.

Data in Figure 3 verify the participants' positive attitude toward the videotaping process.

> ### Figure 3.
>
> In the future, given a choice between traditional evaluation by your principal, your supervisor, or videotaping self-evaluation, which would you choose? Responses were obtained one month after the third videotaping.)
>
> | Videotape | Traditional | Combination |
> |-----------|-------------|-------------|
> | 525 | 237 | 84 |

Responses to the following statements by participants after their third taping and analysis indicate that teachers in the sample have the same or higher anxiety levels with the principal or supervisor in the room as they do when being videotaped the first year:

1. 255—I have more anxiety with my principal or supervisor in the classroom for the purpose of supervision.

2. 336—I have an equal amount of anxiety with the principal or videotape equipment in the room.

3. 165—I have more anxiety with videotape equipment in the classroom.

Feedback indicated that the sharing of the tape with administrators was a nonthreatening experience. Figure 4 reports this data.

> ### Figure 4.
>
> In sharing your tape with the principal or supervisor, how did you feel? Responses were obtained one month after the third videotaping.)
>
> | Very Positive | Somewhat Positive | Neutral | Somewhat Threatened | Extremely Threatened |
> |---------------|-------------------|---------|---------------------|----------------------|
> | 240 | 249 | 276 | 36 | 15 |

Responses taken one month after the second videotaping of teachers the first year continue to emphasize a positive reaction. The data are reported in Figure 5.

> ### Figure. 5
>
> Was sharing your tape with your administrator a positive experience?
>
> | Very Positive | Positive | Somewhat Positive | Negative | Very Negative |
> |---------------|----------|-------------------|----------|---------------|
> | 191 | 339 | 108 | 9 | 3 |

These data strongly suggest that when teachers and administrators are placed in a non-ego-threatening association in an atmosphere where the superior/

subordinate relationship is, for all intents and purposes, eliminated, a collegial relationship is achieveable.

Inservice Activities

The Ohio experience suggests that nine hours of inservice training for volunteer teachers and administrators prior to being videotaped the first time has proven effective in helping teachers and administrators understand the theory base and process of the model. During training, emphasis is placed on teacher acceptance of the responsibility for self-renewal and the development of an administrator/teacher team approach in the improvement of instruction. Strong emphasis is also placed on the positive behaviors of each teacher while the teacher becomes aware of behaviors that could be improved or eliminated.

Instruments used by the teacher for self-appraisal include: "Self-Analysis Criteria for Verbal Behavior," which synthesizes Flanders' work related to verbal interactions[7]; Bloom's Taxonomy as it relates to writing objectives and levels of classroom questioning[8]; and "Self-Analysis for Nonverbal Behavior" which synthesizes Galloway's work related to nonverbal communication in the classroom.[9] An additional instrument, entitled "Pretaping Identification of Objectives and Verbal Interaction Appropriate to Achieve Them," is completed by the teacher before the taping and becomes the frame of reference to which the post-taping analysis is compared. If teaching is a process of deliberate decision making and action by the teacher, there should be congruity between what teachers say they are going to do—both product and process—and what actually happens during teaching.

As part of the inservice training, whoever will be responsible for sharing the tape with the teacher (administrator or supervisor) is trained to function in a nondirective, supportive, facilitative mode as he/she reviews the tape with the teacher.

The Taping Process

Before the first videotaping in the classroom, the teacher presents a microteaching lesson to peers and has a brief practice taping in his/her own classroom.

[7] Ned A. Flanders, *Teacher Influence, Pupil Attitudes and Achievement* (Washington, D.C.: U.S. Office of Education, Cooperative Research Monograph No. 12, 1965). chapters 1, 2, 6.

[8] Benjamin S. Bloom, *Taxonomy of Educational Objectives —The Classification of Educational Objectives, Handbook I: Cognitive Domain* (New York: Longmans, Green and Co., 1956), chapter 2, appendix.

[9] Charles M. Galloway, *Teaching is Communicating: Non-Verbal Language in the Classroom* (Washington, D.C.: The National Education Association, 1970), pp. 11-13.

These experiences are helpful in eliminating much of the early artificiality of the process.

The first scheduled taping starts the formal activities. Taping can be done by a number of people; we have found that highly trained A-V personnel or technicians are not necessary. The two-camera, two-mike, mike mixer, splitter or special-effects generator, tape deck, and monitor hookup system is quite simple, especially if cable ends and chassis terminals are color-coded. The set-up and take-down can be done in five to ten minutes with little disturbance of the class. Teachers are given a choice of which class or activity they would like to have taped with the suggestion that they not choose a "safe" lesson (all pupil activity).

When the taping is completed, the tape is given to the teacher. (The tape will not be used by anyone other than the teacher without his/her written approval.) As soon as possible, the teacher should review the tape first from a nonverbal viewpoint (with the audio off), and second from the verbal aspect (picture off) using the respective nonverbal and verbal instruments. To help the tape review, a second tape deck and large monitor are placed in an area where the teacher can work in relative privacy.

When the self-analysis is completed, the teacher identifies one or two verbal and nonverbal criteria that can be improved. These specific behaviors will be concentrated on in teaching prior to the next taping a month hence. At this point, the teacher makes an appointment with the person responsible for instructional improvement in his/her situation to share the tape and the results of the self-analysis. As noted in Figures 4 and 5, the teacher is usually comfortable sharing the tape and the results of the self-analysis with an administrator. The first year the teacher is taped twice more, about one month apart, repeating the self-analysis, goal-setting, and sharing process.
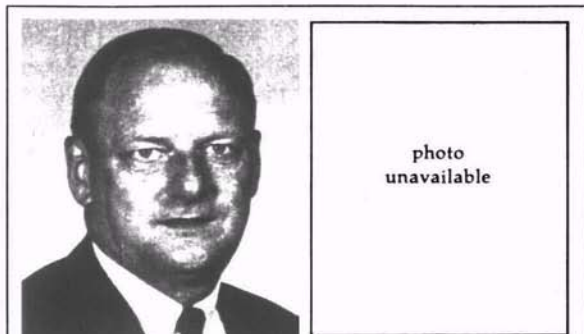
William Moritz (left) is Visiting Assistant Professor of Education, Heidelberg College, Tiffin, Ohio; Jo-Anne Martin-Reynolds is Assistant Professor, Educational Curriculum and Instruction, Bowling Green State University, Bowling Green, Ohio.

Conclusion

Our experience indicates that this self-analysis program for the improvement of classroom instruction is superior to traditional methods. Teachers obtain feedback they can accept, using an objectively-structured system.

The key words in describing the attitude of the teachers are personal involvement and enthusiasm. They reveal a growing positive self-concept as a teacher and feel as if they are in control of what they are doing in the classroom.

The advantage for the building principal is that he/she does not have to take hours away from his/her desk to sit in classrooms during a busy school day. The principal can set appointments before and after school, when things are less hectic, to review tapes with individual teachers.

Finally, this process lessens the ego threat that occurs when the administrator and teacher do not have a common frame of reference upon which to base a discussion and/or evaluation of the teacher's work. The principal and teachers are partners rather than adversaries in the extremely important function of providing the best education possible for boys and girls. E_L_