The Effectiveness of Video Tape Monitoring of Direct Instruction Procedures Across Teachers

John H. Cottrell

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THE EFFECTIVENESS OF VIDEO TAPE MONITORING OF DIRECT INSTRUCTION PROCEDURES ACROSS TEACHERS

by

John H. Cottrell

A Project Report
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Specialist in Education
Department of Psychology

Western Michigan University
Kalamazoo, Michigan
December 1986

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THE EFFECTIVENESS OF VIDEO TAPE MONITORING OF DIRECT INSTRUCTION PROCEDURES ACROSS TEACHERS

John H. Cottrell, Ed.S.
Western Michigan University, 1986

A multiple baseline across subjects experimental design was used to evaluate the effects of monitoring subject performance and providing feedback regarding the implementation of Direct Instruction (DI) procedures from video taped recordings of the subject's presentations of the DI lessons upon the implementation of those DI procedures. The subjects were two junior high school special education teachers who teach reading using the SRA Corrective Reading: Decoding B program. The DI lessons were recorded on VHS video tape and observational data were recorded during baseline. During intervention, a monitor also provided feedback on the subjects' performance using examples from the video tape. Results indicate a performance increase or no effect in five of the six areas monitored. An implication of this study is that using video tape can effectively facilitate the monitoring of teachers who use DI programs.
ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to Howard Farris, who has been extremely patient with me and has provided me with considerable guidance and support throughout this project. I would like to thank Lynn Edwards, Nancy Lindahl, and John Mencarelli for the time, effort and resources they gave to make this project possible. I also thank Lisa LeBlanc for her kindness in letting me use her Apple Macintosh for my figures.

John H. Cottrell
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CHAPTER I

INTRODUCTION

"An effective school is one in which essentially all of the students acquire the basic skills and other desired behavior within the school" (Brookover, Beamer, Efthim, Hathaway, Lezotte, Miller, Passalaqua, & Thornatzky, 1982, p. 7). If the appropriate learning climate is provided, students from any socio-economic, racial or cultural background can achieve at high levels in school (Brookover et al., 1982). There has been a movement in schools stressing the use of more effective instructional procedures in the classrooms. One main area of concern has been the nature of the instruction being used with high risk students (Becker & Engelmann, 1978; Brookover et al., 1982; Engelmann, 1969).

A part of the appropriate learning climate is the use of effective instructional practices. Brookover et al. (1982), Carnine and Silbert (1979), and Farris (1976) state that there are specific characteristics of effective instruction. One characteristic is to assess the student's entering skills before instruction begins. This is to assure that each student has the prerequisite skills for what is going to be taught and to assess how much each student already knows about what is going to be taught. The teacher can make initial placement decisions based upon this information to ensure that the student is placed at an appropriate instructional level that isn't too advanced or redundant.
Another characteristic is the use of instructional objectives that state precisely the behavior the student is to learn, the conditions under which the learning is to occur, and an acceptable standard of performance. Instructional materials can then be selected and arranged to teach these skills specified in the objectives. The skills must be taught starting with information the learner already knows and advancing by small, logical steps toward the final objective. Performance standards should be set that state what criteria must be met before the student can move on to the next level. Students should advance through the learning materials at a rapid pace, but not so fast as to move ahead without learning the material. A rapid pace helps keep the student's attention. Students should make frequent, individual, overt responses during instruction in order for them to practice the new skills as they are being taught and for the teacher to frequently monitor and evaluate each student's responses. The teacher can then give immediate feedback as to the correctness of each response. If an error is made, the teacher should immediately diagnose why the error was made and then correct it so the student does not practice an erroneous response. The teacher should also monitor what skills the student has mastered so the teacher knows when the student has met the performance criteria. If a student doesn't meet criteria, the student should remediate the learning task. To facilitate knowing when each student can move on to the next level, the teacher should record each student's progress in the program. Charting is an easy way to record and keep track of student progress.

It has also been demonstrated that students master more skills
when more time is spent on effective teaching. Educators have to maximize the time spent on the instructional activity and reduce the time spent on non-instructional activities like classroom management and discipline (Brookover et al., 1982, chap. 6; Carnine & Silbert, 1979; Paine, Radicchi, Rosellini, Deutchman, & Darch, 1983, chap. 1).

Direct Instruction (DI) is a teaching methodology that incorporates the above characteristics of effective instruction in its development and implementation. The following is a summary of how the authors of DI programs incorporate these characteristics into their programs. The programs are developed by identifying the component skills necessary for mastery of the subject area, then the prerequisite skills needed to master those component skills are determined. Next, these skills are sequenced according to the order in which they should be introduced to the student, i.e., basic skills before higher level skills. After the skills to be taught have been identified and sequenced, the most effective method of teaching those skills to mastery with a minimum of student errors must be selected. In DI, this is accomplished by writing scripted lessons for use by the teacher at each step. Each lesson is composed of a scripted presentation which includes predetermined correction and remediation procedures which should be followed exactly whenever a student error is detected. The students are given guided practice by requiring them to actively participate by responding in unison during instruction. Their errors are corrected by the teacher and then each student is tested individually. When a prototype lesson is developed, it is tested by presenting it to a group of students and their performance is evaluated for errors. Following

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analysis, the lesson is revised to minimize those errors. This process is repeated until the lesson can be mastered with a minimum of errors, provided it is taught correctly (Carnine & Silbert, 1979, section 1.2).

To maintain the effectiveness of these programs, classroom teachers have to closely follow the teaching procedures with which the program was validated (Gersten, Carnine, & Williams, 1980). These procedures are described in the teachers guide for the program. The teacher must also provide the appropriate correction and remediation techniques when needed as well as do a number of other tasks during the instructional period (Becker, Engelmann, & Thomas, 1975; Carnine, 1978). These requirements, specific to DI, along with general teaching behaviors, demand that the teacher has extensive training in the use of the DI programs he or she is using (Hosner, 1980). Unfortunately, due to the complexity of the procedures and effort required to follow these procedures precisely, teachers have a tendency to use procedures which vary from those prescribed for the program. Even teachers who are trained well and initially meet the program requirements drift over time from established teaching procedures presented in the curriculum guidelines. This variance can be reduced if the teachers are monitored closely and given frequent feedback regarding the accuracy to which they follow the required procedures (Maddox, 1978).

Becker (1972) pointed out that a program must be implemented correctly in order to assess if the students are learning as much as they can as efficiently as possible from the program. To assess if it is being implemented correctly, process measures of instruction must be obtained. If the program is being implemented incorrectly, its effects
on student performance can not be assessed and steps should be taken to remedy the problem in order to have the program used correctly. If the program is being implemented correctly, then steps should be taken to assure maintenance of the correct usage.

Feedback has been found to be effective in providing skills correction and maintenance. Without feedback on their performance, workers may not be productive or be working toward the stated goals of the organization (Brethower, 1972, chap. 3). Feedback has been found to be an effective method of changing or maintaining behavioral performance in several areas. Leitenberg, Agras, Thompson, and Wright (1968) found that when feedback on the length of time subjects were in contact with a target stimulus during desensitization was withdrawn, ongoing progress was slowed; when the feedback was reintroduced, progress improved again. Feedback has also been found to be effective in increasing teacher praise for student attending behavior (Cossairt, Hall & Hopkins, 1973) and increasing the use of operant techniques by attendants in a state institution (Panyan, Boozer, & Morris, 1970).

Feedback can be presented with the assistance of either video taped recordings or audio taped recordings of subject performance. Krumhuss and Malott (1980) found that when tutoring trainees listened to audio tape models of other tutors engaged in the same type of Direct Instruction remedial tutoring, there were large improvements in the target behavior (descriptive social reinforcement) over tutors who had only been given instructions. Further, when feedback was provided from audio recordings of the tutor's own lesson presentation along with the modeling, either after the finished lesson or before the next lesson,
more improvements were made. No significant differences in tutor performance were found relative to when the feedback was given. Pearson Scott, Sollie and Duffey (1983) found that students who received models and written feedback, feedback from video taped recordings, or video taped models, all improved in using communications skills. Hosford and Johnson (1983) compared the effectiveness of using video taped recordings of the subject's interviewing skills, edited to show only appropriate behaviors, as a model for the subject; self observation from video taped recording; and practice with written feedback (no video recordings used). All three strategies were found to have an effect on reducing inappropriate interviewing behaviors. Only the "self as a model" strategy extinguished all inappropriate interviewing behaviors. Ratchford (1982) found additional increases in the correct application of behavior management techniques when feedback from video taped recordings of the subject's interactions with students was used with video discrimination training.

If feedback is to help teachers improve instructional procedures, somebody has to be available, capable and have the responsibility to monitor the instruction and provide feedback. It is the objective of the school administration to assure that teaching occurs under the best conditions (Skinner, 1968, p. 237). To ensure that the teachers and ancillary staff are providing the best conditions for learning, the administration needs to supervise and evaluate the staff's performance or delegate the role of instructional leader. The instructional leader is generally either the building principal or someone else in the school to whom the principal has delegated the responsibility, e.g., a
teacher consultant, educational specialist or department head (Brookover et al., 1982, module 3).

Monitoring instruction and providing feedback are tasks that can be included in supervision and evaluation (McNerney & Medley, 1984). Recent research about teacher supervision and evaluation by the National Institute of Education indicates teachers' teaching behaviors are not observed very frequently (Huddle, 1985). When a group of teachers were asked how often in the previous year they were observed by department chair persons, school administrators, or any other supervisor, 26% said never, 27% said once, and 23% said twice. Also, most teachers operate with virtual autonomy in their classrooms over what they teach and how they teach it. Even in schools with preselected texts and strict curriculum guides, most teachers use the materials they wish and very few teachers are given guidelines on how to teach the material (Huddle, 1985).

For monitoring to occur then, there have to be the resources (financial, material, and human) available in the school system to carry it out (Alfonso, Firth, & Neville, 1981). In schools these resources are often limited or restricted. It can be difficult to arrange schedules among school personnel to accomplish the necessary monitoring of teachers using DI programs in their classroom. A possible alternative to direct monitoring by another staff person is recording the instructional activities of a teacher on audio or video tape. This would allow the monitor to observe the teacher and provide feedback at his or her convenience. Since observing the instructional session takes much more time than the feedback, monitoring the
An instructional session with the use of a video tape would allow the observer much more flexibility as to when he or she can observe the session. This could help free up the human resources required for monitoring. Following the viewing of the tape, the observer only has to arrange a short meeting with the teacher to provide feedback and discuss corrective measures.

The purpose of this study was to determine the effectiveness of the use of video recordings for monitoring teacher presentations of Direct Instruction lessons in a secondary special education program.
CHAPTER II

METHOD

Subjects

The subjects were two junior high school special education teachers who use the Decoding B materials of the SRA Corrective Reading Program (Engelmann, 1978). Teacher A was a first year teacher who had about one half of a year's experience using this reading program through student teaching with Teacher B. Teacher B was an experienced teacher who has been teaching DI approximately four years.

Setting

The study took place in two special education classrooms in an inner-city junior high school in western Michigan. The students in the classes represented a broad spectrum of special education categories arranged in a cross grouped program where each student was placed according to his or her instructional level rather than his or her educational label. The group contained both seventh and eighth grade special education students. Some of the students had had experience being instructed with DI programs before the study. Each teacher had four to eight students in his or her reading class.

Apparatus

Each session, the instructional activity was recorded upon VHS
video cassettes using a video tape camera and a VHS video cassette recorder. The recording equipment was set up by an observer in a back corner of the classroom across from where the lessons were taught. An observation form was used to systematically collect performance data on teacher and student behavior from the recorded lessons.

Procedure

The experimental design for this study was a multiple baseline across subjects (Baer, Wolf, & Risley, 1968). The study was conducted during the board work (word attack) portion of the reading lesson during first period of the school day. Sessions usually alternated daily between Teacher A and Teacher B. The teacher consultant for the building and the researcher were responsible for monitoring the quality of the instruction. The researcher collected the data on teacher and student performance.

The number of correct group responses, the number of signal errors (an error where a student either before or too long after the teacher gives a signal to respond), the number of content errors (an error where a student responds at the right time with an incorrect answer), the number of correct individual responses made during individual turns, the number of individual errors made during individual turns, and the number of errors corrected by the teacher were later recorded from the video tape of the session on an observation form. It was also noted if the students were seated so they could see the material, if the teacher observed all of the students, if the teacher presented the formats correctly, and if the teacher used clear signals for group
responses. After recording, the observational data were analyzed to yield data relating to some of the characteristics of effective instruction like pacing, using appropriate corrections and remediation, etc.

Before baseline was taken, video tapes of some lessons of Teacher A were recorded in order to calibrate measurement by the observers using the observation form. Also during this time the observer was be trained in monitoring DI procedures and giving feedback on observation.

The researcher recorded eleven sessions of baseline data on Teacher A and nine sessions of baseline data on Teacher B. Baseline for Teacher B started after five sessions of baseline data were obtained on Teacher A.

After eleven sessions of baseline data of Teacher A were taken, intervention began for Teacher A while baseline continued for Teacher B. During intervention an observer monitored Teacher A from the video tape and took data for about 10 minutes of the lesson. Within two days of the observation session, the observer gave teacher A feedback regarding his instructional behaviors. The observer used the video tape of that session to show examples of what needed improvement and then provided a model of the appropriate techniques to be used either from the recording, or in person if no appropriate model was demonstrated on the tape.

Intervention for Teacher B began after three observation sessions of intervention for Teacher A were conducted. Intervention for Teacher B involved beginning the same intervention of monitoring and giving feedback to Teacher B as was done with Teacher A. Monitoring and feedback were continued with Teacher A as well. Intervention was conducted
over seven observation sessions for Teacher A and over nine observation sessions for Teacher B.

Data collection was from the observation form described above. The results were calculated comparing the changes in behavior across baseline and intervention for each subject. The dependent variables were divided into two categories: teacher behavior and student behavior. Results were calculated for teacher behavior from the obtained data to yield: the percentage of student errors corrected per session (# of corrected errors / total # of errors * 100), the percentage of individual turns to low performing student responses per session (the average # of responses by low performing students / the average # of responses by all students), and response signals per minute (total number of responses / # of minutes observed). A low performing student was any student who made one or more errors during individual turns for that session. Results were calculated for student behavior from the obtained data to yield: the percentage of unison group responses per session [(correct group responses + content errors) / total # of group responses * 100], the percentage of correct group responses per session [# of correct group responses / (# of correct group responses + # of content errors) * 100], and the percentage of correct individual responses per session [# of correct individual responses / total number of individual responses * 100].

Reliability

Reliability was assessed by recording a second set of data from the video tape on the first, fifth, thirteenth, and seventeenth session
for each subject and calculating a Pearson product-moment correlation 
(r) for the total responses recorded on the observation form and each 
of the following areas: the number of correct group responses, the 
number of signal errors, the number of content errors, the number of 
correct individual responses made during individual turns, the number 
of individual errors made during individual turns, and the number of 
errors corrected by the teacher. All together, reliability was as­
sessed on ten of the 36 sessions observed. To determine if there was a 
consistant observer bias (i.e., if the observer used a different re­
cording criteria, during either the first or second observation sets), 
the experimenter calculated the percent of observations that indicated 
greater results during the first observation set, the percent of obser­
vations that indicated greater results during the second observation 
set, and the percent of observations that indicated a tie between first 
and second observation sets. If a consistantly greater results were re­
corded during one observation set for any area observed, there could 
have been a change in observer criteria for that observation set 
(observer bias).
CHAPTER III

RESULTS

Teacher Behavior

Data were obtained for teacher behavior in three areas: the percent of student errors corrected per observation session, the percent of individual turns given to low performers per observation session, and the average number of student responses made per minute per observation session. Reported baseline averages are based on the last four baseline data points for each area (see Table 1).

Student Errors Corrected

For the percent of student errors corrected per observation session by Teacher A there was a slight upward trend during baseline which increased during intervention. For Teacher B there was a negatively skewed trend during baseline and a slightly upward trend during intervention (see Figure 1).

Individual Turns to Low Performers

For the percent of individual turns given to low performers per observation session by Teacher A there was a slight upward to flat trend during baseline and a slight decreasing trend during intervention. For Teacher B there was a negatively skewed trend during baseline and intervention (see Figure 2).
Table 1
Results of Teacher Performance

<table>
<thead>
<tr>
<th>Area</th>
<th>Teacher A</th>
<th>Teacher B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Intervention</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>Student Errors Corrected</td>
<td>55%</td>
<td>6%-87%</td>
</tr>
<tr>
<td>Individual Turns to Low Performers</td>
<td>73%</td>
<td>60%-81%</td>
</tr>
<tr>
<td>Response Signals per Minute</td>
<td>12</td>
<td>8-17</td>
</tr>
</tbody>
</table>
Figure 1. Percent of Student Errors Corrected per Observation Session for Teachers A and B.
Figure 2. Percent of Individual Turns Given to Low Performing Students per Observation Session by Teachers A and B.
Response Signals per Minute

For the average number of response signals per minute per observation session by Teacher A the trend during baseline was increasing slightly and near level during intervention. For Teacher B there was a slight upward trend during baseline and a sharper upward trend during intervention (see Figure 3).

Student Behavior

Data were obtained for student behavior in three areas: the percent of unison responses per observation session, the percent of correct group responses per observation session, and the percent of correct individual responses per observation session. Reported baseline averages are based on the last four baseline data points for each area (see Table 2).

Unison Responses

For the percent of unison responses per observation session by Teacher A, there was a fairly steep upward trend during baseline which became less steep during intervention. There was a slight upward trend during baseline and a near flat trend during intervention for Teacher B (see Figure 4).

Correct Group Responses

For the percent of correct group responses per observation session by Teacher A, there was a fairly flat to downward trend during baseline
Figure 3. The Number of Response Signals per Minute per Observation Session for Teachers A and B.


Table 2
Results of Student Performance

<table>
<thead>
<tr>
<th>Area</th>
<th>Teacher A</th>
<th></th>
<th>Teacher B</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Intervention</td>
<td>Baseline</td>
<td>Intervention</td>
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<tr>
<td></td>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
<td>Range</td>
</tr>
<tr>
<td>Unison Responses</td>
<td>76%</td>
<td>17%-82%</td>
<td>80%</td>
<td>65%-93%</td>
</tr>
<tr>
<td>Correct Group</td>
<td>75%</td>
<td>67%-87%</td>
<td>85%</td>
<td>72%-94%</td>
</tr>
<tr>
<td>Correct Individual</td>
<td>84%</td>
<td>73%-91%</td>
<td>91%</td>
<td>70%-100%</td>
</tr>
</tbody>
</table>

Figure 4. Percent of Student Unison Responses per Observation Session for Teachers A and B.
which rose slightly during intervention. For Teacher B, there was a slight upward trend during baseline and a near flat trend during intervention (see Figure 5).

**Correct Individual Responses**

For the percent of correct individual responses per observation session by Teacher A, the trend during baseline was nearly flat and rose slightly during intervention. For Teacher B, there was a slight upward trend during both baseline and intervention (see Figure 6).

**Reliability**

The overall Pearson product-moment correlation for all eight areas observed across the ten sessions checked was .98. The range of the Pearson product-moment correlations across the eight categories observed was from .78 to .99 (see Table 3). Observer bias may have been present in one of the eight categories assessed. There was a 50% difference in greater results for observation set 2 in the area of content errors corrected (see Table 4).

**Table 3**

<table>
<thead>
<tr>
<th>Category</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct Group Responses</td>
<td>.87</td>
</tr>
<tr>
<td>Signal Errors</td>
<td>.96</td>
</tr>
<tr>
<td>Signal Errors Corrected</td>
<td>.97</td>
</tr>
</tbody>
</table>
Table 3—Continued

Pearson Product-Moment Correlations (r)

<table>
<thead>
<tr>
<th>Category</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Errors</td>
<td>.78</td>
</tr>
<tr>
<td>Content Errors Corrected</td>
<td>.84</td>
</tr>
<tr>
<td>Correct Individual Responses</td>
<td>.99</td>
</tr>
<tr>
<td>Individual Errors</td>
<td>.94</td>
</tr>
<tr>
<td>Errors Corrected</td>
<td>.98</td>
</tr>
<tr>
<td>Overall</td>
<td>.98</td>
</tr>
</tbody>
</table>

Table 4

Percent of Greater Results Across Observation Sets

<table>
<thead>
<tr>
<th>Category</th>
<th>Set 1</th>
<th>Same</th>
<th>Set 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct Group Responses</td>
<td>30%</td>
<td>20%</td>
<td>50%</td>
</tr>
<tr>
<td>Signal Errors</td>
<td>60%</td>
<td>0%</td>
<td>40%</td>
</tr>
<tr>
<td>Signal Errors Corrected</td>
<td>30%</td>
<td>0%</td>
<td>70%</td>
</tr>
<tr>
<td>Content Errors</td>
<td>40%</td>
<td>10%</td>
<td>50%</td>
</tr>
<tr>
<td>Content Errors Corrected</td>
<td>10%</td>
<td>30%</td>
<td>60%</td>
</tr>
<tr>
<td>Correct Individual Responses</td>
<td>40%</td>
<td>10%</td>
<td>50%</td>
</tr>
<tr>
<td>Individual Errors</td>
<td>30%</td>
<td>40%</td>
<td>30%</td>
</tr>
<tr>
<td>Errors Corrected</td>
<td>10%</td>
<td>50%</td>
<td>40%</td>
</tr>
</tbody>
</table>
Figure 5. Percent of Correct Group Responses per Observation Session for Teachers A and B.
Figure 6  Percent of Correct Individual Responses per Observation Session for Teachers A and B.
CHAPTER IV

DISCUSSION

The results of the study support the hypothesis that monitoring teacher presentations of SRA Corrective Reading Program: Decoding B (Engelmann, 1978) lessons using video recordings can be a viable method for monitoring teacher performance in presenting those Direct Instruction reading lessons. The data indicate there was either no effect or a general improvement in teacher performance across five of the six categories for both teachers.

The dependent variables were divided into two categories for each teacher. The categories were teacher behavior and student behavior. The variables under the category of teacher behavior were direct measures of teacher performance which are minimally influenced by student behavior. The variables under the category of student behavior were measures of student behavior which tend to covary with teacher performance. The variables that measure student errors covary with the teacher's performance in presenting the lesson, correcting student errors and assuring that the students are firm (have mastery of the skills presented in the task) on a task before moving on. The unison responses variable tends to covary with the teacher using clear signals and correcting previous signal errors.

There was a tendency across some measures of increasing or unstable baseline performance as is seen on the baseline in the area of
unison responding. Due to this tendency, only the last four baseline data points for each area were used to calculate the average baseline performance. After intervention, the trends in teacher performance were much more stable. The upward trends during baseline may be a function of the subjects knowing they are being observed on video tape and/or the students performing better as they become accustomed to being video taped.

The data also indicate there may have been a ceiling effect on Teacher B's performance. This may have resulted from Teacher B having had a lot of experience teaching this program with previous monitoring, and therefore demonstrating high levels of performance during baseline. The higher levels of performance initially left less room for improvement to be recorded. This may also be why Teacher A generally had greater increases in performance across areas than Teacher B since his baseline performance left more room for improvement.

An area that appeared to have a significant increase in performance over baseline performance was the percent of student errors corrected by the teacher. This is a critical area because student errors need to be detected and appropriately corrected immediately. Increased teacher performance in this area could greatly help student learning.

There was a decrease in teacher performance in the area of response signals per minute for Teacher B. This decline in response signals per minute for Teacher B may be inversely correlated with the increase of student errors being corrected since error corrections generally take more instructional time and there are fewer
opportunities for to signal a response each minute. However, the rate of signaling responses remained above a recommended minimum criteria of 10 responses signaled per minute.

The results of this study are similar to the results of other studies that have used video taped recordings of the subject's performance as a source for feedback. This type of feedback was found effective in improving university student's communication skills (Pearson Scott et al., 1983), improving counselor trainee's interviewing behaviors (Hosford & Johnson, 1983), and teaching behavior management skills to special education classroom aides (Ratchford, 1982). Other studies have also demonstrated that greater improvements were obtained if models of appropriate behavior were presented with the feedback (Pearson Scott et al., 1983) or if the video tape shown to the subjects has been edited to show only appropriate behaviors (Hosford & Johnson, 1983). It is possible that greater improvements in teacher performance could have occurred if the subjects of this study were presented with video recorded models of appropriate performance or if they were shown only their own appropriate behaviors.

The results indicate video tape monitoring of teacher's performance teaching Direct Instruction reading lessons can be an effective and practical method. This is of practical significance for educators because monitors can observe teachers on the pre-recorded video tapes when it is convenient for them rather than scheduling time for monitoring according to the teacher's instructional schedules. Now it may be possible for more teachers using Direct Instruction reading programs to be monitored on a regular basis. This can be of benefit to
teachers since a monitor can be a source of reinforcement for using the DI program. Students can benefit from the increased monitoring by having the lessons taught better, and as a result they may learn the material faster.

Further research should be conducted to evaluate monitoring the use of other Direct Instruction programs. Math and spelling programs are a few areas that could be investigated. Also giving different types of feedback (i.e., giving outcome feedback or showing only appropriate teaching behaviors from the recording) could be investigated to see if there are more effective methods monitoring after observing the presentation of the lesson from video tape.
Appendix A

Lesson Observation Form
## Observation Form

<table>
<thead>
<tr>
<th>Teacher:</th>
<th>Lesson:</th>
<th>Date:</th>
<th>Time observed:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|         | Signal errors | Content errors |
|---------|---------------|
|         |               |

### Group Responses

<p>| | |</p>
<table>
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### Student Names

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</table>

### Individual Responses

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</tbody>
</table>

### Comments

**Signals:**

**Corrections:**

**Formats:**

**Set up:**

**Management:**

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BIBLIOGRAPHY


Madigan, K., & Youngmayr, L. (1985, May). A supervision model for Direct Instruction programs. An Invited Address at the Association for Behavior Analysis Convention, Columbus, OH.


