


1969

The Use of Video Tape Replays to Modify Student Behavior in an Elementary Classroom

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THE USE OF VIDEO TAPE REPLAYS TO MODIFY STUDENT
BEHAVIOR IN AN ELEMENTARY CLASSROOM

A Thesis

Presented to

the Graduate Faculty

Central Washington State College

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by

Robert Lawrence Ewing

August, 1969

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CHAPTER I

INTRODUCTION

The experience of being confronted with your own image on video tape may effect many changes in a person. As an illustration, Dettre (1967) related a story about an elementary teacher who had been immune to supervision for 20 years. When she heard about a job opening to teach on television, she decided to apply for it. Each applicant made a 15 minute television tape for purposes of evaluation. When she was not chosen for the position, she decided to critique her performance with a supervisor by watching a play back of the tape. During this time, she observed, listened, and remained silent. After it was over, she turned to her supervisor and asked whether that image really reflected what she looked like before her own classes. He assured her it represented a typical performance. After this experience, her supervisor reported that she did more changing in the classroom than she had done in 16 years.

This case seems representative of several reported in the review of literature. Educators in many different kinds of training programs have been experimenting with video

recording equipment in an effort to learn more about its impact on people. Very few studies have been reported about its usage, perhaps because it was introduced on the commercial market only about 10 years ago.

Dettre (1967) reported that student teachers at the University of New Mexico were able to reduce "peculiar and erratic behavior" as a result of viewing their teaching behavior on video tape. The students were asked to evaluate the tapings. After this experience, a majority of them reported views similar to these:

It was worthwhile because it gave me a chance to see my mistakes, but also let me see some things I did fairly well, too.

I saw what a dull and boring lecturer I could be. It made me search for other techniques, a must for me.

It calmed my fears that some physical flaws and speech mannerisms would really be serious obstacles in my teaching. Up until the taping session, I was convinced my teaching image would be lousy. Now, I know the flaws are there, but they sure are not worth worrying about (Dettre, 1967, p. 695).

Similar results were reported by Scheuler and Gold

(1964) in their experiment with video recordings at Hunter College. Student teachers were video taped for more than 240 half-hour teaching performances, each of which was critiqued by the student in the presence of his college supervisor. Moderate changes were reported to have taken place in all the students. These include: improvement in voice and speech, body movement and vocal expression, more interest and attention to the subjects being taught, better pupil discipline, and more teacher activity to elicit greater pupil participation. When compared with a second group of students who had not had the video tape experience, they reported being the most satisfied, reasoning that the equipment helped individualize the teaching program as well as speed up the process of learning.

Student teachers at Stanford University have also used video tape recordings to perfect teaching skills. Mac Mahan (1967) reported a study of trainees being video taped while trying to improve their skill in using questions effectively during a micro-teaching session with ninth graders as subjects. Following the session, the trainees and supervisors critiqued the performance in terms of aims, content, method, review, and reinforcement. Later, the

trainees had an opportunity for self-evaluation when they viewed it alone. Since each performance was recorded, a permanent record was kept against which they could compare future performances. Unless the trainee demonstrated mastery of the skill he was trying to perfect, he was not allowed to advance in his training. Instead he was required to practice the skill on another group of children and repeat the same method of evaluation. The outcome of this study was not reported.

Saltzman (1964) reported video tape recordings being used successfully in the development of orchestra conductors and students learning contemporary dance at the University of Illinois. The students reported in a questionnaire that their televised performance was a profitable experience in helping them to improve their skills. They indicated being unaware of how they really performed until the tapes were played back. One dance professor reported that her students learned faster from the video experience than from any technique previously used.

At Michigan State University, Kagan and Krothwohl (1967) reported that video equipment was used extensively to provide a more accurate means of interpreting client behavior

for students enrolled in the counselor education program. It was felt there was little understanding of the client's non-verbal behavior, because there was no feedback from the client as to what it meant. To better understand this, a video tape recording was made of the trainee's interview with a client, then played back with the trainee's supervisor present who questioned the client about any behavior not clearly understood. Results from the program have shown that many clients became more aware of their behavior and personal idiosyncracies and felt the need to alter or redirect it to improve their communication with the counselor and other people as well. Trainees likewise increased their awareness of the totality of interpersonal communication within the interview. They expressed surprise about the meaning and implications of the client's behavior, as well as their own in counseling the client. These observations seemed to increase the trainee's awareness of a greater amount of client communication, and helped him to sensitize his personal feelings when counseling a client.

A feeling of "intense, sometimes painful self-awareness" was reported by Nielsen's §s when they were confronted with movies of themselves (1964, pp. 40-41). Some §s

indicated they disliked seeing pictures of themselves, reasoning that it tended to make one too preoccupied with himself which they felt was abnormal. Other Ss wanted to spend hours watching themselves on film, saying that they might understand other people more fully if one acquired true self-insight. It was noted that self-attention often increased during the film in proportion to the amount of talking the S did.

Lawrence (1969) reported that viewing video tape recordings changed the self-concepts of individuals involved in a nude-group therapy marathon. Video recordings, five minutes in length were made of each participant in a variety of movements. The pictures included facial closeups, shots from the waist up, and full body profiles. The tapes were played back twice to each person, once in the group setting immediately after it was recorded, and again the next day in private. A second tape, one hour in length, consisted of candid views of the group interaction including group discussions and the participants again being involved in a variety of body movements. This was shown to the group approximately 12 hours later. During the replay, the individuals were allowed to comment and discuss what they

perceived while watching the behavior and appearance on the tapes. Lawrence (1969) reported that the participants had "highly specific concepts and self-perceptions of their own physical appearances (p. 478)." Their remarks tended to focus on the negative characteristics of their body, such as over or under weight, poor body proportioning and unattractive changes due to aging. Many of these concepts met with verbal disagreement from members of the group who assured them they were not perceived in this manner. Despite these comments, the people continued to maintain their beliefs. When the video tape was played back privately to them, their self-concepts changed and were judged more congruent with the group perception.

The studies reviewed suggest that viewing oneself on film can be used to stimulate changes in behavior. Some of these alterations may have been due to such influences as academic grades or group opinion which may have threatened the individuals more than seeing themselves on film. In the present study, these influences were minimized, so that a better assessment of video effects could be made. As in previous studies, video recordings were used to determine whether behavioral changes would occur. However, several

differences made this study unique from the others. The usual form of evaluation either on a grade or group basis was not allowed. No mention was made of why the Ss were being video taped nor the purpose of viewing the play-back. Where adults of varying ages had been used for Ss before, young children were selected for the present investigation to see if discernible differences would also occur in this age group.

The hypothesis for the present study was that behavioral responses could be altered in young children as a result of viewing themselves on video tape.

CHAPTER II

METHOD

Subjects

Four Ss, members of a sixth grade class and approximately twelve years of age, were used in the experiment. They were enrolled at Hebeler Laboratory School, Central Washington State College, Ellensburg, Washington. They were selected from a pilot video recording of a class discussion. Criteria for selection had been established as behaviors which may interfere with learning as observed from the pilot video recording. Some of the behaviors lasted for relatively long periods of time. Those children exhibiting these behaviors were selected as the Ss. It was decided to time them for duration of length as well as their frequency of occurrence.

One of the subjects, Danny, never appeared content to stay in one position for more than a few minutes. His restlessness was defined as a mixture of three actions: rocking back and forth in the chair, resting his head on his desk, and sliding down in the chair.

A second boy, Richard, appeared inattentive during class. He became involved in a variety of activities:

sliding his chair up and down the aisle, drawing pictures and showing them to his neighbor, making faces to attract people's attention to himself, and reading a book. Some of these were difficult to view on tape, since his seat was farther away from the camera than the other subjects. For this reason, inattentive behavior was defined as bending the head over the desk in the act of drawing or reading a book.

Lorri, one of the girls selected, spent considerable time grooming her hair. This was defined as any action where the hand stroked or fingered the hair.

A second girl, Theresa, was quite assertive in wanting to talk. She raised her hand frequently, trying to attract the leader's attention so as to be given an opportunity to talk to an extent considered excessive and disruptive. This behavior was defined as raising the hand to be called on to participate in the discussion.

Apparatus

The experiment took place in a classroom at Hebel Laboratory School. The video tapes were made with a Sony portable video tape recording unit, using sixty minute reels of a half inch tape. A low impedance microphone was suspended

a few feet above the middle of the group. Placed next to the recorder and only in view of the camera technicians was a television set which monitored the picture being produced on film. To facilitate getting a picture of the entire group without moving the camera, it was mounted on an elevated tripod and equipped with a wide angle lens. However, it was still necessary to position the camera 24 feet away from the nearest person to include everyone in their normal seating arrangement. An inadequate amount of space in front of the room made it necessary to film from the back of the classroom. This restricted viewing to profiles of the Ss to be observed. Stopwatches were used by the Observers (Os) who assisted the Experimenter (E) in making a count of the behaviors to be studied.

Procedure

After consulting with the classroom teacher, it was agreed that a daily discussion period, 30 minutes in length would be video taped for a period of three weeks. Several precautions were taken to avoid influences that might contaminate the results. Since the purpose was to measure the influence video taping had in modifying behavioral change,

the teacher left the room after announcing the topic for discussion. This left the Ss responsible for selecting a discussion leader and the kind of behavior they chose to exhibit during the period.

After the behaviors had been defined by the E, three qualified Os were recruited to assist in gathering the data. A few days prior to beginning the experiment, the Os were shown the pilot tape from which the Ss had been chosen. The purpose was to gain experience in learning which behaviors to count and proficiency in timing them with stopwatches. The E and Os each selected a different S and recorded this information during the playback. Each counter then rotated to a different S during the second playback and recorded the frequency and duration of the appropriate behavior for that S. This procedure provided each S with a double set of counted and timed behaviors which was then compared for inter-rater reliability. There was high agreement in the count of Lorri and Richard which may have been due to their seating arrangement being more in view of the camera when it was used in front of the room to record the pilot film. There was considerable variance in agreement among the raters for Danny and Theresa who were farther away and not in good locations

for the camera. Also, they were sometimes partially blocked from view by other children around them. There was some disagreement among the raters in knowing when Theresa raised her hand, because the girl sitting beside her raised her hand frequently at the same time. These problems were eliminated when the camera was relocated to the back of the room when the experiment actually began. The practice was established that when the S was blocked in such a way that his behavior could not be seen, counting ceased rather than assume it was being continued out of sight.

The experiment was divided into three equal phases which extended over a three-week period. During Phase I, behaviors were counted and timed for each of the four Ss so that a comparison could be made with the results of the other two phases. The major purpose of Phase II was to confront the Ss with a filmed portion of their individual performance during the previous day's discussion. Although the procedure in Phase III was identical to Phase I, the purpose was to determine whether the Ss' behaviors had changed significantly as a result of the video playback. Details of these phases follow.

Phase I. A video recording was made daily for five days of the 30 minute discussion periods so that a baseline of the behavior could be plotted for each S. The E and Os met together daily for the purpose of timing the behaviors of the Ss when the films were played back. Each was equipped with a stopwatch, then assigned a S to follow during the first playback. The behavior was timed from its beginning to end. The watch was stopped and the time written down. This procedure also made it possible to obtain a frequency count of the behavior. Following this, the E and Os selected a different S to watch during the second replay of the film. The E kept a record of these assignments during all phases of the experiment, so that each S was counted nearly an equal number of times by the E and each of the Os. The procedure just described was similarly followed in Phase III.

Phase II. The class viewed a video playback daily for five days showing the closing 15 minutes of the previous day's discussion. With the exception of two days, the teacher remained in the classroom during the playback, since it was felt his presence would influence the children to give better attention to the film. He directed them to watch their

performance and listen to where the discussion ended, so they could begin at that point in case he directed them to continue it. When the film ended, he announced the discussion topic and then left the room. This was then taped, and the behaviors counted and recorded as described in Phase I. All other days proceeded similarly.

Since each S's behavior was counted twice by different Os during the experiment, a check for inter-rater reliability was made to determine the degree of accuracy achieved over the entire study. The Pearson product-moment correlation was computed between raters for the duration and frequency of the behaviors, as clocked by the raters across the 15 days (Table I).

To obtain further information on the effects of video recordings, the E interviewed eight children in the class on an individual basis. The group included the Ss whose behaviors had been studied, while the other four were randomly selected from the class roster. A series of questions were asked each S about the experiment, in an effort to learn more about the feelings of the Ss during various stages of the study.

TABLE 1

INTER-RATER RELIABILITY OF S's BEHAVIOR

SUBJECT	DURATION RELIABILITY	FREQUENCY RELIABILITY
DANNY	.86	.95
RICHARD	.82	.95
THERESA	.71	.69
LORRI	.96	.89

CHAPTER III

RESULTS

The mean daily duration and frequency of the behaviors recorded during the study are presented in Table 2 and Figures 1-8. A mean for each phase was calculated and then compared with each other to test its statistical significance at the .05 level. A randomization test (Siegel, 1956) was used to compare the daily frequency and duration across the three phases. This test was chosen because the assumptions of normality and homogeneity of variance necessary for a parametric test may not have been met and could become important for numbers this small. The only assumption required of the randomization test is that the data be equal interval. Since the hypothesis did not indicate the direction of the expected changes in behavior, a two-tailed test of probability was used.

Danny's duration rate of restless body movement (Fig. 1) decreased significantly when the results of the base-replay and replay-post phases were compared. The frequency rate (Fig. 2) of this activity declined significantly when the base-replay phases were compared.

There were many fluctuations in Richard's activity both in duration and frequency rates (Fig. 3 and 4) during all phases of the study. The results were tested for significance, but failed to show that a reliable change had occurred.

Theresa's rate of hand raising declined in both duration and frequency as noted in Figures 5 and 6. The results of the post-check phase should be interpreted with some caution, since a count was not made during the final two days when she served as discussion leader for the class. The duration of the behavior was lower in each phase of the study compared with the previous phase. The frequency rate of the activity decreased significantly during the base-replay and the base-post phases.

Due to illness, Lorri was not present during the post-check phase of the study. The duration rate (Fig. 7) of hair grooming failed to reflect any significant change when results of the base line and replay phases were compared. A change did occur when the same phases were compared for frequency rate (Fig. 8). The frequency rate diminished significantly.

TABLE 2

THE MEAN FREQUENCY AND DURATION OF BEHAVIOR

PER DAY OF EACH PHASE

	Subject	Phases			Significance		
		Base	Replay	Post Check	Base-Replay	Replay-Post	Base-Post
Duration of Behavior in Minutes	Danny	14.0	4.4	8.6	$p < .05$	$p < .05$	
	Richard	10.8	11.2	9.6			
	Theresa	8.1	3.4	2.5		$p < .05$	$p < .05$
	Lorri	1.7	.6				
Frequency of Behavior	Danny	22.7	11.0	18.0	$p < .05$		
	Richard	19.0	18.4	13.0			
	Theresa	28.0	15.8	9.6	$p < .05$		$p < .05$
	Lorri	12.4	4.2		$p < .05$		

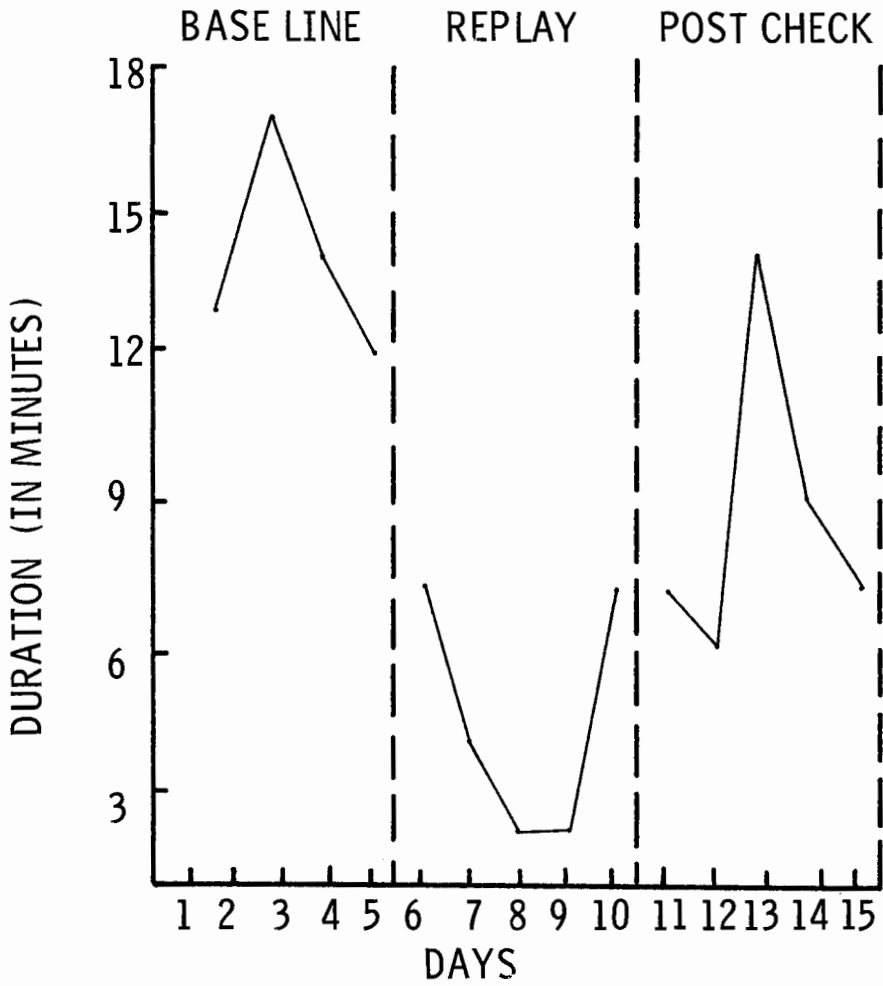


FIG. 1. DURATION OF RESTLESS BODY MOVEMENT

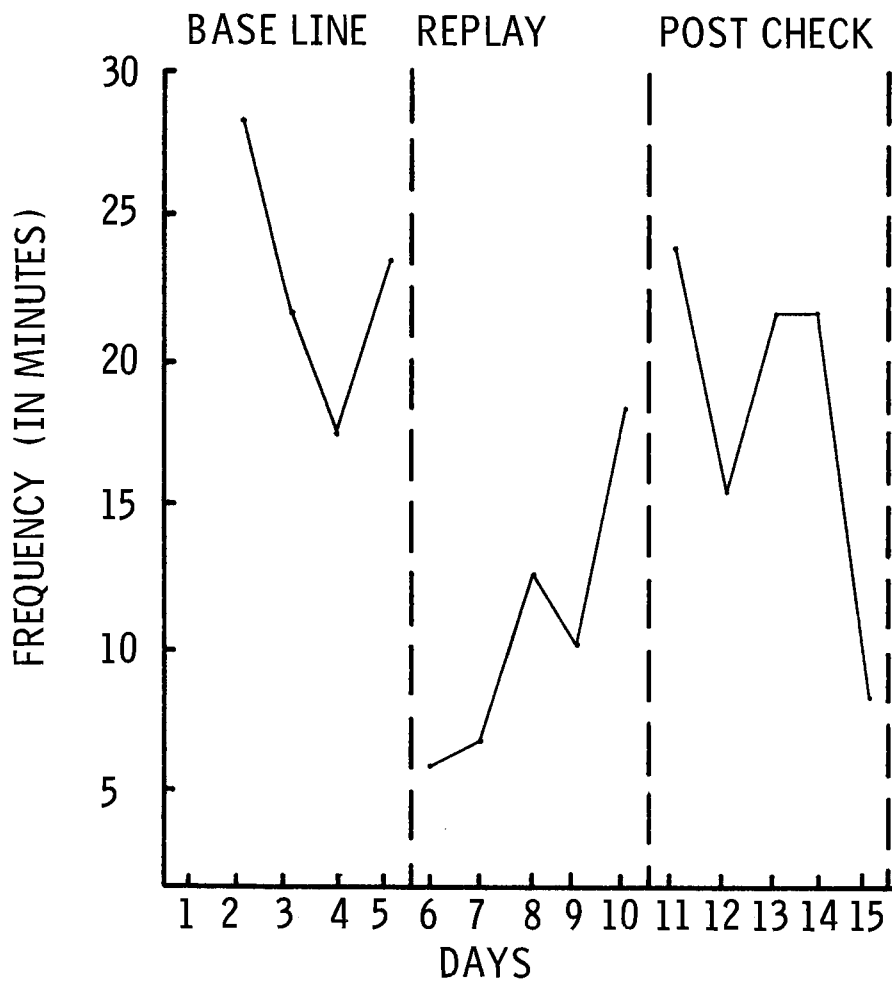


FIG. 2. FREQUENCY OF RESTLESS BODY MOVEMENT

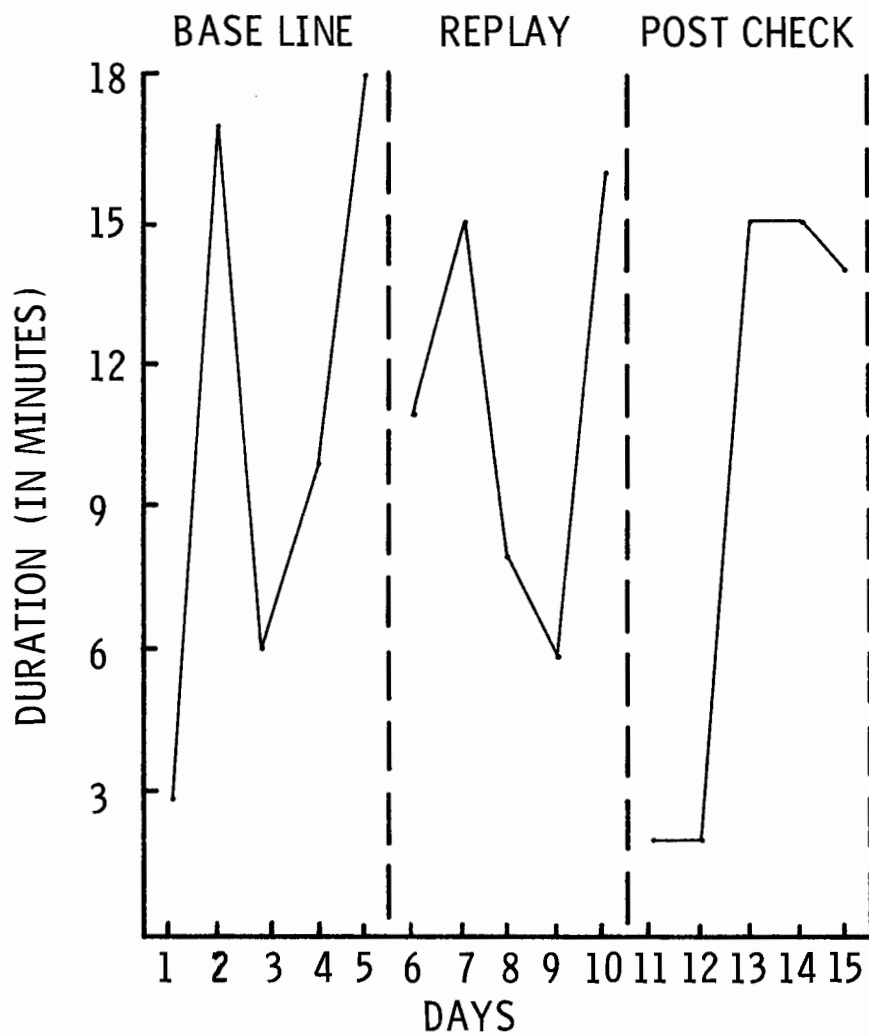


FIG. 3. DURATION OF INATTENTIVENESS

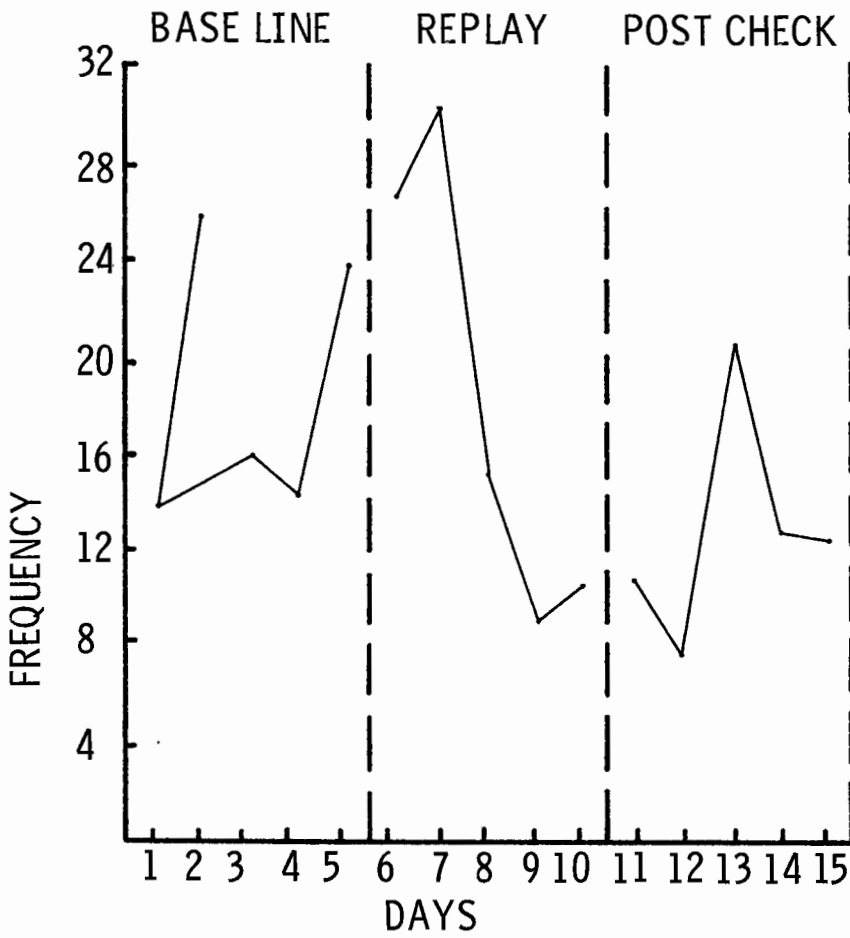


FIG. 4. FREQUENCY OF INATTENTIVENESS

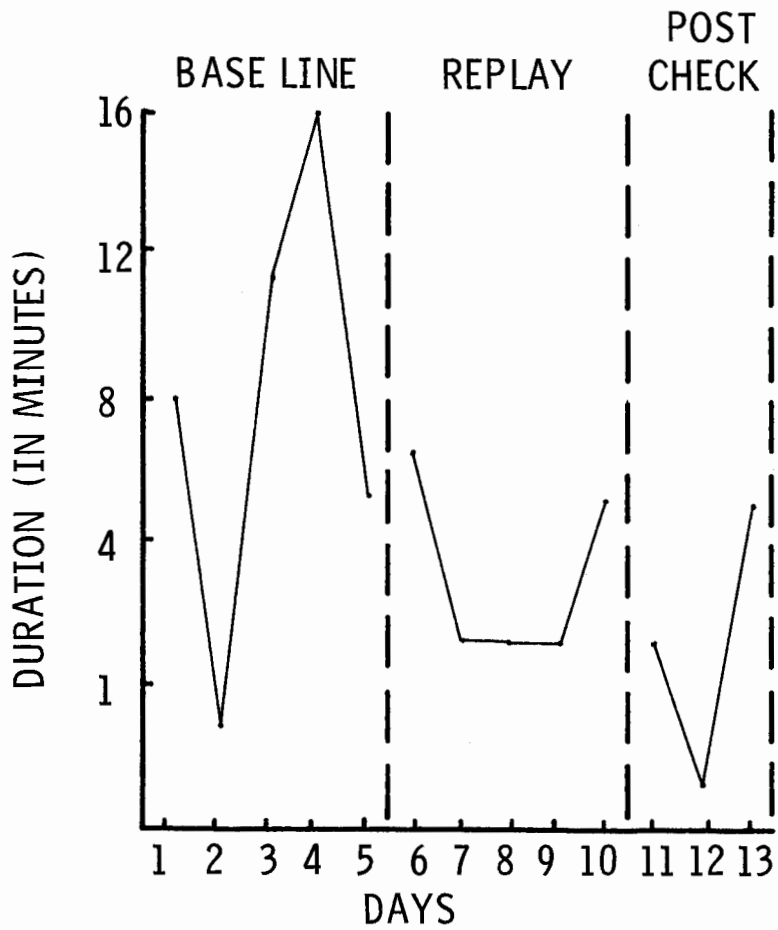


FIG. 5. DURATION OF HAND RAISING

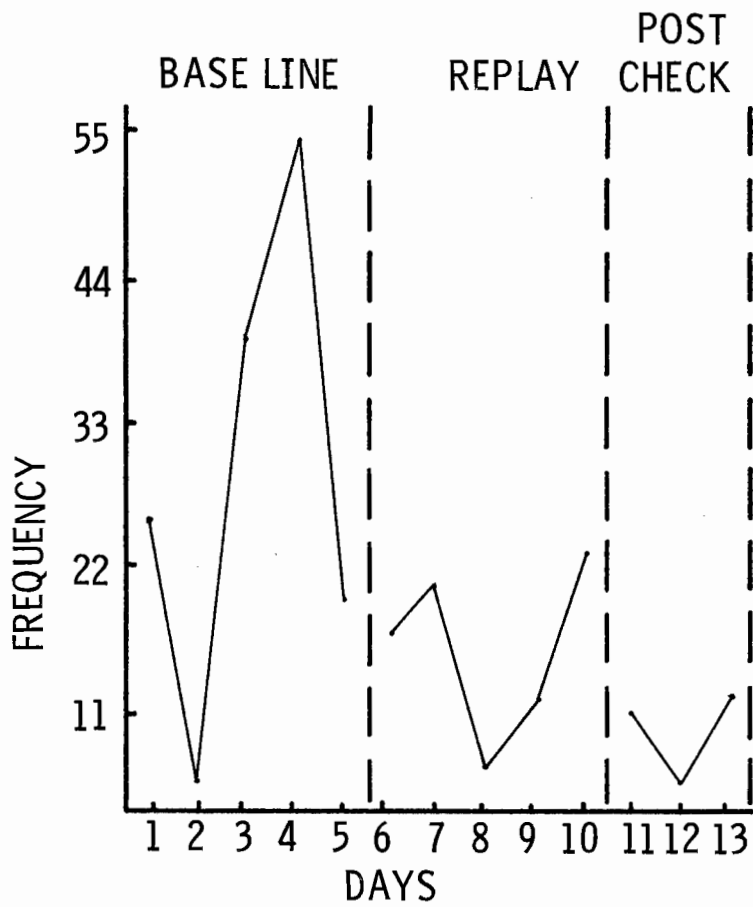


FIG. 6. FREQUENCY OF HAND RAISING

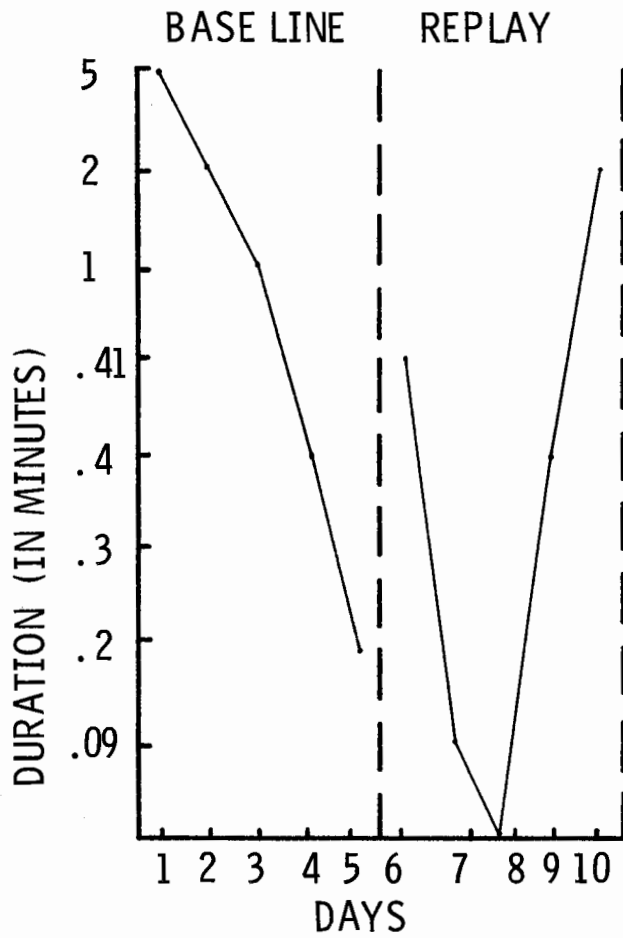


FIG. 7. DURATION OF HAIR GROOMING

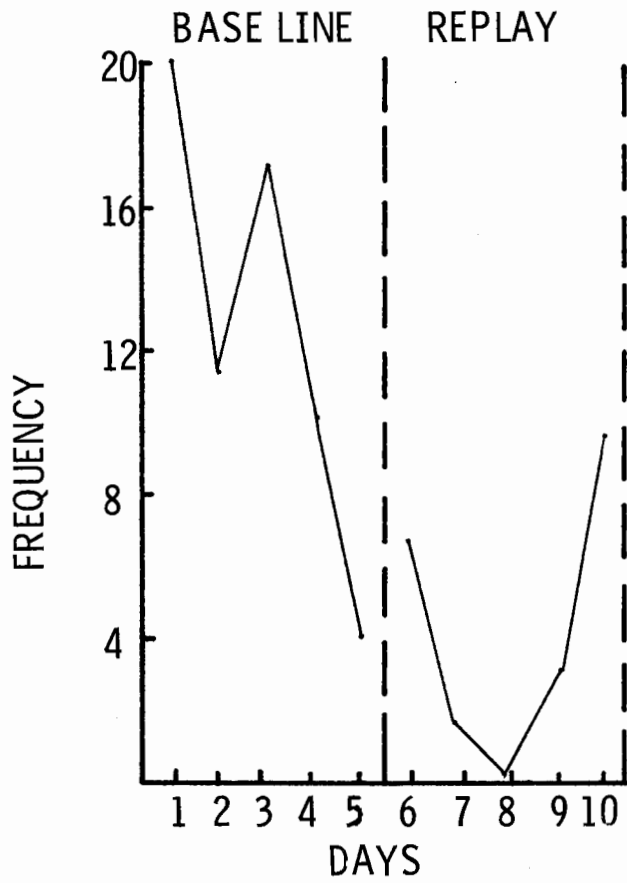


FIG. 8. FREQUENCY OF HAIR GROOMING

CHAPTER IV

DISCUSSION

Although there was high correlation among the raters for their reliability in counting and timing the behaviors, this should be interpreted with some caution. Before the video recordings were played back, the E assigned the Os to the ss they would observe. If some question arose about the recording of a particular behavior, the O directed the TV technician to stop the film so he could discuss the matter with the other rater assigned to that S. This procedure was adhered to during the entire study, thereby allowing a close check to be made on the behaviors being studied. Inter-rater reliability might have been quite different if the Os had not worked so closely together.

The statistical analyses of the results did not show significance in every case so that the hypothesis could not be fully supported. However, the frequency and duration of the ss' behaviors fluctuated considerably during the course of the study and the number of days in each phase was so small that the test of significance lacked power.

During the first two discussions, the class was directed to talk about different ways of getting everyone actively involved in the discussions. Though absent the first day, Danny was restless during the second day of the study. He did not raise his hand once to participate, and instead, either leaned back in his chair or rested with his head down on his desk. Richard occupied the time by drawing pictures or reading a book. Lorri shifted her head to whoever was speaking during the beginning part of the first discussion, hardly grooming her hair at all. During the closing minutes, she stared at various objects while stroking her hair. She watched nearly all the discussion participants the second day, giving only slight attention to her hair, perhaps because many of the students were arguing among themselves. Theresa spoke several times the first day, though her hand was raised many more times than she was recognized to speak. This may have prompted her to talk without raising her hand the following day.

A different topic was discussed the final three days of the week. Danny's body movement continued to be about the same until the last day when he twice volunteered

information. On both occasions the class showed their displeasure at his presentation by saying his information was not correct. Following this, he put his head face down on the desk, covering both ears with his hands. Richard looked at the discussion speakers quite often during the first day of the new topic. By Friday, he barely looked at them, preferring instead to draw pictures. On one occasion he interrupted the discussion with disruptive behavior when he saw the video equipment being unplugged and put away. Lorri continued to look at the discussion speakers and gave less attention to grooming her hair. Theresa raised her hand an increased number of times during the first two days of the new topic, but spent the last day talking to those around her. She argued with what some of her classmates had said, taking long periods of time to present her point of view. Her tone of voice made it appear that she spoke louder and with more force than the others.

In viewing the first replay of the videoed discussions, the class was seated in its normal arrangement. The TV monitor was positioned for the best possible viewing in the room. Theresa, Lorri, and Danny were seated in good viewing positions, while Richard was quite far away. This also meant

he was farther away from the camera so that his image on film was not as clear as the others. Before leaving the room, the teacher directed them to observe the film quietly, paying particular attention to their individual performance. The E looked at the Ss periodically as they viewed the film to see how much attention they gave to it. During this and subsequent replays, Danny sometimes stared at various objects rather than look at himself even while he was taking part in the discussion. This may have been his reaction to negative remarks made by various class members when he was talking.

Following the first replay, the class was directed to suggest ways of getting better group participation in the discussion period. No names were mentioned of any class members or of descriptive types of behaviors which may have identified someone, thus perhaps evoking peer influence in effecting behaviors to change. Richard showed the least amount of improvement during the discussion, perhaps because he wasn't able to view the video playback from his seat as well as the other subjects.

During the second video replay, the class was grouped closely together to improve their viewing of the film. Danny and Theresa were attentive, while Richard talked to those

around him, and Lorri combed and braided a girl's hair. Following the replay, the class was directed to continue its discussion from the previous day. Once Lorri started to comb her hair, but suddenly stopped when she looked in the direction of the camera. Danny leaned back in his chair much less than he had the week before. This may have been due to his presence being more in view of the camera when his chair was tipped back, away from the person next to him. Richard drew most of the time, but did raise his hand once, perhaps giving some indication he was aware and interested in some of the discussion.

During the third video playback, the teacher overheard Theresa tell a classmate she wasn't going to participate during the discussion. This may have been due to the influence of seeing or hearing herself on film or a declining interest she may have had in the discussions. Although her hand raising decreased in frequency, she kept her hand raised as much as the day before. After the film, the teacher directed them to continue with their previous day's discussion. Before he left, several asked if they might change to another topic and also requested permission to shorten the period. He replied that the topic might be

changed the next day, but for various reasons, the period could not be shortened. In most instances, the behaviors of the Ss declined from what they had been before, perhaps because they had given better attention to the tape replay than before, or because they were bored with the discussion.

A new discussion topic was introduced to the class after it had viewed the fourth playback. It did not seem to have much appeal for the group, since few people raised their hands to participate. It might be expected that disruptive behavior would have resulted from the children's lack of interest, but instead, they became more quiet and passive to what anyone said.

Danny's frequency of body movement remained the same as the day before, since he drew pictures most of the period. Though Figures 7 and 8 show Richard's degree of inattentiveness continuing to decline, this should be interpreted with some caution. It was difficult to count his behavior during this particular day's discussion, because a classmate blocked the camera's view during parts of the period. While the count may have been higher than what was recorded, only the behavior that could be clearly seen was counted.

Before beginning the tenth discussion, the teacher

directed the students to stand when they were called on so as to be more clearly understood and seen by the class. The topic was identical to what it had been the day before, but the class responded much more enthusiastically to it.

Several members of the group spoke for the first time, even though they probably knew their presence would be more conspicuous on the video tape now that they had to stand up. Unlike the other three ss, Lorri did not look at the participants, preferring instead to look at her desk or the wall while grooming her hair.

At the beginning of the final week, the class verbalized their disappointment in not being allowed to view replays of their discussions. Their teacher promised he would play some back in the near future. Only two ss were studied for all of the final week, since Lorri was ill and Theresa was elected discussion leader for the final two days. Some thought was given to extending the length of the study so that both of these ss could be observed for the same duration of time as the others. It was felt, however, that the variable of sickness might have some effect on Lorri's normal hair grooming tendencies when she returned to school. Also, it was felt that prolonging the study might contaminate

the results, since the children were showing signs of fatigue and boredom.

During the first two days of the post check, the Ss kept their level of improvement about the same as it had been during the replay phase. Danny and Richard participated several times in the discussion, while Theresa was attentive, but refrained from participating as much as before.

When the class saw the video equipment being set up, several members verbalized their displeasure in having another discussion. Most of the class was disruptive during the discussion, making it difficult for the leader to maintain order. Danny played with an object he had brought to school and leaned back in his chair several times to show it to some classmates seated farther down the aisle. Higher counts were also recorded for Theresa and Richard, perhaps due to the waning influence of seeing themselves on video tapes.

Danny was attentive the final two days, raising his hand several times to participate but very seldom being called on. As discussion leader, Theresa often interrupted the participants, tending to dominate the class with her own ideas.

The appendix contains responses to a post-study

questionnaire from eight of the students, four of whom were the subjects who were interviewed privately by the E. Most of them said they had been surprised at seeing some of their behaviors on the video tapes and felt the experience would have a definite effect on them in the future if they were ever confronted again with video equipment. Danny said he felt embarrassed in seeing himself fall from his chair in picking up a pencil. He expressed surprise in seeing other things of himself: length of hair, drawing pictures, and resting with his head on the desk.

Theresa expressed several surprises: the amount of wiggling she did in her chair, the amount of talking with those around her, and the loudness and high tone of her voice. Although she had heard herself on audio tape before, she was displeased in hearing her voice on video tape. In the future, she indicated she was going to try talking softer. Improvements in speech mannerisms by students viewing themselves on video tape agree with the findings of Scheuler et al. (1964).

Richard was surprised at seeing himself engaged in disruptive activities during the discussions. He indicated he would probably be more involved in future discussions.

Lorri confessed being disappointed with herself in not being more involved in the discussions, saying that she was going to be more active in the future.

The other students interviewed expressed similar views about their lack of participation. One student indicated she wanted to do several things during the discussions such as writing, passing notes, visiting with her neighbors, and drawing, but decided against all of these when she observed how clearly her image appeared on the video playbacks. She expressed disgust at hearing herself repeat an expression, "Oh golly," so many times during the replays, saying that she was presently trying hard to break this habit.

When questioned about why they thought their discussions were video taped, most of them felt the purpose was to help them analyze their performance so they could improve the discussions. Only one S thought the purpose was for the benefit of college students, who he felt probably watched the discussions by way of closed circuit television.

Although there were marked decreases in the Ss' overall behaviors that were being counted, many more studies need to be conducted before any definite assumptions can be made about the influence of video equipment. The quantity

of video tape made available for research and the heavy scheduling demands made on the video equipment during this study required doing the research in a relatively short period of time. In future studies where young children are used for Ss, more recordings should be made, but over a longer period of time to determine whether the results offer any significant difference. Recordings should likewise be made of children in other curriculum areas so that a comparison can be made of its overall effectiveness in the total school program. Since the research for this study was conducted in a college laboratory school, studies should also be carried out in regular public schools to check for possible variations in the results.

In many elementary schools, administrators are trying to find ways of providing their teachers with planning periods which would make them free of classroom responsibilities to correct papers or develop lesson plans. This often necessitates hiring additional personnel to take over the teacher's room, or assigning the children to another teacher during this time. If the results of video studies clearly indicate it is effective in influencing behavior, such equipment might be used when students are engaged in study type situations

where the presence of a teacher is not necessary except to maintain proper classroom discipline. Following these periods, occasional playbacks of the students' study performance could be shown for purposes of evaluation and perhaps used as a guide for determination of grades in certain subjects. In the day of ever increasing educational costs, the utilization of video equipment for this purpose might represent considerable economy over a period of time.

Teachers might also have video recordings made of their teaching performances, using them as guides in helping them develop more effective teaching skills, and in helping the student become more aware of his performance in the classroom. The introduction of new concepts might also be video taped for teacher and students to critique as a means of improving communication and other skills. Certain of these might be kept for future use either as a review for the teacher before introducing the concept again or as an aid to others teaching the same material.

Video recordings might also be used to critique class plays and similar activities before being presented to an audience. Many times teachers refuse the wishes of their pupils to become engaged in such activities, because of the

time and effort involved in practice. The use of video tape recordings for this purpose might speed up the process and at the same time require less effort on the teacher's part.

Additional research findings may discover many more uses of video equipment for improving methods of disseminating knowledge and skills in the classroom. "For successful education," Whitehead (quoted by Stonesifer, 1967, p. 12) wrote, "there must always be a certain freshness in the knowledge dealt with. It must be new in itself, or it must be invested with novelty of application to the new world of new times. Knowledge does not keep any better than fish."

CHAPTER V

SUMMARY

This study was conducted to see whether behavioral responses in a school classroom setting could be altered in young children as a result of viewing themselves on video tape recordings. Unknown to the class, four Ss were chosen who exhibited behaviors considered detrimental to their learning process. The frequency and duration of these behaviors were tallied from the video tapes in each of three separate phases of the study, base line, feed back, and post check. During base line and post check, the Ss' activities were video taped during a series of discussions. During feed back, the Ss were shown the previous day's video recording. For three of the Ss, a decrease in frequency of these behaviors was noted during the feed back phase. During post check, a decrease in duration was found in two Ss when compared to feed back, and a decrease in frequency and duration of one S when compared to base line. Because of the small sample and lack of controls, it would be difficult to draw generalizations from these results.

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APPENDIX

APPENDIX

Post Study Questionnaire

1. How often have you seen yourself on film before?
- 1_b. How recently?
2. Do you like to see yourself on video tape?
3. Did you watch yourself more than your classmates?
4. Do you think you would have acted differently if the camera and technicians hadn't been present during the discussions?
5. Would you have liked to see yourself close up?
- 5_b. See others close up?
6. Did you find your actions were about the same or different than others in the room?
7. Were you embarrassed by anything you saw?
8. Would you rather have seen the film by yourself?
9. Were you surprised by anything you did?
10. Did seeing yourself have any effect on you?
11. What did you think of yourself when you saw the video replay?
12. Why do you think the discussion was taped?

Subjects' Responses by Question Number

<u>No.</u>	<u>Danny</u>	<u>Theresa</u>	<u>Richard</u>	<u>Lorri</u>	<u>Others</u>
1.	5 times	2 times	5 times	5 times	3-1 time 1-3 times
1 _b .	2nd gr.	5th gr.	6th gr.	6th gr.	1-5th gr.
2.	yes	yes	yes	yes	yes
3.	yes	yes	yes	yes	yes
4.	no	no	no	no	2-yes 2-no
5.	yes	yes	no	no	2-yes 2-no
5 _b .	yes	yes	yes	yes	4-yes
6.	same	same	diff.	same	3-different 1-same
7.	yes	no	yes	yes	3-no 2-yes
8.	yes	no	yes	yes	2-no 2-yes
9.	yes	yes	yes	yes	2-no 2-yes
10.	yes	yes	yes	yes	3-yes 1-no
11.		S E E D I S C U S S I O N			
12.		S E E D I S C U S S I O N			