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A COMPARATIVE STUDY OF THE

EFFECTIVENESS OF A MIXED VS. A POSITIVE ONLY MODEL IN THE

MANAGEMENT/SUPERVISORY TRAINING TECHNIQUE,

BEHAVIOR MODELING

A Dissertation Presented

bу

JOHN W. STACEY

Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

September 1987

School of Education

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JOHN W. STACEY

Approved as to style and content by:

Dr. Horace Reed, Chairperson of Committee

Theodore Slovin, Member

Acting Dean, School of Education

ACKNOWLEDGEMENTS

The author is greatly indebted to many staff at the University of Massachusetts for their assistance. Fred Swan and Diane Flaherty of Staff Development, and Louis Musante of the Audio Visual Department for their assistance in the training and production of the video models. A special note of thanks is due Richard Talbot, Director of Libraries, for his support and encouragement throughout my studies and to Charles H. Powers for initially prodding me to take the doctorate.

I further deeply appreciate the assistance, guidance and support of Dr. Horace Reed who was always there when I needed him, as well as that of Dr. Robert Miltz and Dr. Theodore Slovin without whose support this work could not have been accomplished.

Appreciation is due to Ms. Debra Amos whose typing and editorial advice are reflected in these pages.

Finally, to my wife, Sharon, and our children, Stephanie and Allison, a debt of gratitude for support and tolerance during lengthy physical and psychological absences is most sincerely expressed.

ABSTRACT

A COMPARATIVE STUDY OF THE

EFFECTIVENESS OF A MIXED VS. A POSITIVE ONLY MODEL IN THE MANAGEMENT/SUPERVISORY TRAINING TECHNIQUE,

BEHAVIOR MODELING

September 1987

John W. Stacey, B.S., M.S., Southern Connecticut
State University

Ed D., University of Massachusetts
Directed by Professor Horace Reed

With the widespread use of video models in training for a variety of tasks, there is disagreement about, and continued need for, research into the role of the video model in behavior modeling type training.

Video models were used in a behavior modeling type training setting that showed a supervisor in a mixed (less than competent) or a positive only (highly competent) role. The hypotheses of this study were first, that there would be no significant difference in the performance of trainees who viewed a mixed model vs. a positive only model when training for a simple task. Secondly, that a mixed model would be significantly more effective than a positive only model when training for a complex task. Finally, that for both tasks, treatment groups would perform significantly better than controls. Results indicated confirmation of the first hypothesis. Analysis of the data collected on the complex task indicated no significant difference in subject

performance. Consequently there is no support for hypothesis two and three. The results of this study offer evidence that for a simple task the type of video model does not significantly effect trainee performance. Results from the complex task data are inconclusive and raise questions about the feasibility of assessing complex performance with the methods used, as well as the efficacy of behavior modeling training for complex tasks. Difficulties encountered in assessing trainee performance of a complex task are discussed. The conclusion calls for further research on the efficacy of video models in behavior modeling type training for complex tasks.

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CHAPTER 1

INTRODUCTION

Overview

With the advancement of video technology, the use of video equipment has become common place, nationally and internationally. The use of video equipment in education and training in this, and other industrialized nations, is extremely broad and indesputable. The effects and efficacy of video based training have been the purpose of much research during the past decade. This is as it should be. As educators (who are also always students) it is incumbent upon us to be as pedagogically effective as we are able. It is therefore not sufficient to simply use new technologies but to use them effectively. We must be constant in our efforts to know the how and why of technology in the learning environment whether that be the schoolroom or the corporate training room.

Since the early 1970's, the use of video modeling has become widespread in various training techniques. From its beginnings in microteaching, it has been used in counselor training and has become very popular in industrial training under the label of the behavior modeling technique. Based on Bandura's (1977) Social Learning Theory, behavior modeling originated from the efforts of Goldstein and Sorcher (1973) whose book, Changing Supervisor Behavior, is the significant foundational work. Since this time there has been a continuous debate regarding the efficacy of the behavior modeling technique in general and of its various components, such as video modeling, in particular. The significance of this study lies, in general terms, in that it is

part of the ongoing process of learning about the role of video modeling in behavior modeling training.

Problem

More specifically, the problem that this research endeavors to address is a lack of empirical data on the existence of a relationship between the nature of the video modeling display and trainee performance by type of task. An ongoing controversy exists among practitioners about the nature of the video modeling display in regard to aspects of its production, organization and style of modeled performance.

There is a general consensus among the experts on a number of aspects about the modeling display. These are that the behavior to be learned should be clearly and directly shown and trainees must be able to identify with the model. Next there should be minimal distractions, technical and contextual, in the display and the behaviors should be presented in order from simple to complex. Finally, the modeling display should not be an entertainment film, or simply informational, but instructional.

The areas of debate include whether the set should be neutral or realistic and questions about the degree of reality or neutrality of the program. These pertain to how closely the setting and problem modeled resemble the organization hosting the training. A third area of debate is over the style of the supervisor in the modeling display. Pertaining to the level of competence displayed, this disagreement is alternately called coping vs. perfect or expert performance. Some practitioners claim that a modeling display which shows a supervisor

behaving in a coping, less than completely competent style, will result in higher identification among trainees and therefore be more effective than expertly modeled supervisory behaviors. Others contend that showing anything short of mastery (expert) supervisory behaviors is distracting and results in diminished learning. It is this area, coping (mixed) vs. perfect (positive only) modeling display behaviors that this study will address. It is not sufficient, however, to seek to investigate only the effectiveness of type of video models. In the reality of the training setting, behavior modeling is used to train for different types of tasks. More specifically, this research will compare the effectiveness of the type of video model (mixed vs. positive only) when used with two types of task (simple vs. complex) in behavior modeling training.

The general assumption of this research is that there is a relationship between the nature of modeling display, the type of task and the degree of learning reflected in trainee performance. There are a number of specific questions that one can derive from this assumption. Each question should, of course, be posed within a behavior modeling training atmosphere, and are as follows. What, if any, is the difference in trainee performance of a simple task comparing identical training using a mixed model vs. a positive only model? At the same time how would the performance of a group (control) from the same population doing the same simple task, but without the benefit of training, compare with the trained groups? Further, what is the difference in trainee performance of a complex task comparing results from identical training using a mixed model vs. a positive only model?

Finally, how would the performance of a group (control) from the same population compare on the complex task, without training?

While there is a great deal of opinion on these questions in the literature, there is very little research data available. One study which used video modeling in counselor training offers useful results. Alssid and Hutchison (1977) found that a positive only model resulted in greater learning for a simple task though there was no significant difference between the mixed and positive only models. For the present research, the first hypothesis was that there will be no significant difference in performance between trainees who viewed a mixed or positive only model when training for a simple task.

In relation to training for complex tasks, there is wide divergence of opinion among practitioners and researchers. Cook and Kunce (1977) found that positive only models significantly reduced anxiety among counselor trainees, while Meichenbaum (1971) reported mixed models as being more effective in reducing avoidance behaviors. For the purposes of this research, a second hypothesis was that trainees who viewed a mixed model will perform significantly better than those who viewed a positive only model when training for a complex task.

A final hypothesis of this research was that for both tasks, the treatment groups would perform significantly better than the non treatment control groups.

Organization of The Dissertation

Chapter 2 describes the rationale and the variables of the research. It opens with a review of the literature, primarily on behavior modeling. This will provide a historical background on

theoretical underpinnings and the evolution of this training technique since the early 1970's. This chapter provides brief though detailed descriptions of a number of studies on behavior modeling and of the ongoing controversies surrounding it. This chapter is intended to provide the reader with a balanced portrayal of the background and both sides of the issues as yet unresolved in this area. This first review section sets the stage for the rationale section of Chapter 2. Here the focus is on reviewing works and studies that are allied more closely with the goals of this study. It includes assessments of studies which look at the relationship of video models in training and explains how this study is intended to aid with the clarification of some of the inherent controversy. Chapter 2 closes with a description of the variables involved, the specific questions related to those variables and the hypotheses that can be formed from both.

Chapter 3 is a detailed description of the research design. This chapter opens with a brief background of the avenues of organization that were taken to formulate the workshop setting within which the study would take place. Next follows a description of the sample and briefly how the participants were recruited. This chapter also includes a detailed description of the training workshop used for the research. This section includes information concerning why, as well as how, various aspects of the training were organized and presented. This is intended to provide a backdrop for the reader.

Chapter 3 continues with a description of how the video models were produced. This description is quite detailed. It is intended to provide the reader with a clear picture of how the models differ in

their organization and content as required to represent two versions of the independant variables. This chapter then proceeds on to describe the organization and collection of the data derived from the training workshop. It explains how the various data were retained, to maintain accuracy, as well as to demonstrate the level of attention to detail necessary to uphold participants rights. The final piece of this section lists the raters training and the final steps of data compilation.

The last portion of Chapter 3 is a recounting of some of the more difficult complications encountered. This section is presented in a case history style. It is offered with the hope of helping the future researcher to be more aware of the difficulties that can arise with this type of study.

Chapter 4 is a listing of the results of the various computerized data procedures applied. It basically describes the type of computerized procedures applied and the statistical results. This also includes information on how each type of data was collected with references to samples of the various forms located in the appendix. It contains a number of tables showing the results of the data analysis and the raw scores obtained in both the simple and complex task tests. Each table has an accompanying explanation that includes influences on and the nuances of the results.

Chapter 5 is a detailed interpretation of the results listed in Chapter 4. It offers an explanation of the results including quantitative and qualitative influences. In a conclusions section, this chapter speaks to how this study compares with others that

investigated similar specific questions. This is a consideration of how it contributes to the controversy in this field.

The final section of Chapter 5 is a brief offering of advise to the future behavior modeling trainer/researcher. It is the most personal piece of this thesis and comes from closely felt learnings about the process of this research.

In order to put this study into perspective, one should first look at the field. Visualizing the foundation is a first step to planning. It is necessary to look at the background and to establish a context within which the research is to take place. From within this setting a particular focus can be identified which will provide the specific questions and variables for this study. A review of the pertinent literature on Social Learning Theory, behavior modeling, and video modeling in training was the foundational step for this research.

Developing questions about the role of video modeling in training was the next step. From these questions, variable were identified for a study comparing the type of video model used in training for types of task. This foundational process is undertaken in the following chapter.

CHAPTER 2

RATIONALE AND VARIABLES OF THE RESEARCH

This chapter, by giving a background, will provide the reader with a basis upon which to understand behavior modeling. It is important to be familiar with the history and the controversy of this field to establish the context within which this research takes place. By briefly going back and reviewing the history of this training method, the stage can be more clearly set to articulate the specific questions of this study. This chapter will provide the history, review the literature (including describing specific relevant studies) and close with a listing of the specific questions and hypotheses of this study. A History of Behavior Modeling

Behavor modeling is a training technique that, in a most basic description, consists of demonstrating (modeling) behavior(s) to be learned, rehearsing and practicing the behavior(s) and then receiving constructive feedback. Since its development in the early 1970's, behavior modeling has evolved into a widely used training technique on an international scale. The theoritical underpinnings of behavior modeling are to be found in Bandura's (1977) Social Learning Theory. Bandura postulates that we can and do learn through vicarious reinforcement. We learn by observing the consequences of the behavior of others. More importantly Social Learning Theory predicts the potential for behavior change without prior attitude change. Bandura suggests that attitudes will change after behaviors are internalized.

The connection between behavior modeling and Social Learning Theory is quite direct with its observation, practice and feedback structure.

There is general agreement that the work of origin on behavior modeling was done by Goldstein and Sorcher (1973). Their book,

Changing Supervisor Behavior, gives a description of their Applied

Learning Theory and is generally considered a prerequisite reference for any practitioner. Employed by the General Electric Co., Goldstein and Sorcher developed this new approach to training supervisors based on modeling, role playing and reinforcement. Unhappy with the results of previous training, Goldstein and Sorcher used their Applied Learning Theory primarily for developing supervisor's interpersonal skills.

They developed and implemented training for numerous supervisory situations like dealing with the habitually tardy employee, and performance appraisal. Within a few years, others were building upon their pioneering work.

By the mid 1970's, behavior modeling was already being widely used. Corporations such as AT&T, Boise Cascade Corp., General Electric, Kaiser Corp., RCA, IBM and B.F. Goodrich are among those hosting this training for their managers and supervisors.

Virtually all of this training was being done in industrial settings. Initially it was for supervisory/management development, later it spread to sales personnel. At the same time, allied studies on video modeling in counselor training were being conducted. As was the case with the evolution of microteaching, the behavior modeling technique was greatly enhanced by the technical progress of video taping equipment replacing live and film presentations of models. A

powerful advantage of video is the capability to record and playback performances virtually instantaneously and its accuracy as a source of research data. (The impact of self-confrontation via video tape in training settings has also been the subject of lengthy study.) In 1976 the first empirical studies on behavior modeling were published. With them the debate about its efficacy was launched.

Analysis of Specific Studies

In analyzing the literature on behavior modeling as a training method, it breaks down in the following manner. While the fundamental tenets of learning via modeling have been with us for decades, behavior modeling is a relatively new method of training. It has been used predominantly in the business/corporate world in the training of supervisors and managers. Some of behavior modelings' supporters have made claims of its general applicability, "For any skill that can be overtly demonstrated and practiced" (Kearsley, 1984, p. 113). Its primary use has been as a vehicle for the development of interpersonal skills.

During the decade of the seventies, behavior modeling was increasingly used in training supervisors and managers. By 1979, B. Rosenbaum was claiming that "more than 300 companies (are) now using it." (p. 40). As the 1970's turned into the 1980's, the continued application of this method was described by J. Robinson (1980), who claims "Now in 1980, over 500,000 supervisors, managers, and employees of all kinds will be trained using behavior modeling technology." (p. 22). We know that the use of behavior modeling began to extend to other populations and applications. Cooker and Cherchia (1976) and

Curran and Gilbert (1975) studied its use in training high school students as peer group facilitators, in reducing date anxiety and improving interpersonal skills in college students, respectively.

Malec, Park, and Watkins (1976) also used it in training college students to overcome test anxiety. Additional studies report its use with assertion training (McFall and Twentyman, 1973; Wolfe and Fodor, 1977) with college students and with women in an outpatient clinical setting, and in the training of observers of behavior (Spool, 1978). This method has also been used successfully to train sales personnel (Meyer and Reich, 1983).

The vast majority of the literature, however, shows this training method to be primarily used as an adult learning method. While it is stated to be "a general purpose technique that can be used for any kind of learning that involves overt behavior," (Kearsley, 1984, p. 111) and predictions are made that "There will be broader applications of behavior modeling technology," (Robinson, 1980, p. 27) this has not been reflected in the literature to date.

Although the majority of the literature on behavior modeling is quite praiseful, the claims of its success have not gone unchallenged. There has been some controversy about behavior modeling's efficacy, disagreement about what constitutes the most effective modeling display, and generally about the nature of the method. McGhee and Tullar (1978) questioned the results of four reports on studies of behavior modeling training given at a symposium in 1976. A number of authors have described disagreement among practitioners (Zemke, 1982; Parry and Reich, 1984) about the components of an effective program,

and others have identified possible shortcomings (Robinson, 1980; Kearsley, 1984; Parry and Reich, 1984) in the method.

In 1976, four reports presented at a behavior modeling symposium were published in Personnel Psychology (Kraut, 1976). These were reports of studies designed to test the efficacy of behavior modeling training in an industrial setting. These studies were Burnaska's (1976) "Effects Of Behavior Modeling Training Upon Managers! Behaviors and Employees' Perceptions"; Byham, Adams, and Kiggins (1976), "Transfer Of Modeling Training To the Job"; Moses and Ritchie's (1976), "Supervisory Relationships Training: A Behavioral Evaluation Of a Behavior Modeling Program"; and Smith's (1976), "Management Modeling Training To Improve Morale and Customer Satisfaction. These were really the first scientifically administered studies published on behavior modeling. Generally speaking, they all suggest that behavior modeling training was significantly more influential or facilitative of the particular skills sought than the non-behavior modeling training of control groups. Two years later, a separate review of the training literature resulted in less enthusiastic conclusions about these studies.

McGhee and Tullar (1978) conducted a review of the training literature from 1967 to 1972 and "Searched for reports of scientific evaluations of behavior modification and behavior modeling used in industrial training." (p. 477). They reported that they found no reported scientific evaluations of behavior modification. This lead the authors to conclude that behavior modification may have taken on the status of "sacred cows impervious to scientific evaluation." (p.

Personnel Psychology, they review and evaluate these studies in their report. The authors explain their purpose as one of evaluating these pioneering efforts since the results of the research reported in them will be cited and quoted as evidence in favor of modeling training in industry. Before these studies became "hardened into doctrine, they should be evaluated carefully" (McGhee and Tullar, 1978, p. 477).

McGhee and Tullar evaluated these studies for threats to internal validity found in experimental and quasi-experimental research designs. They concede that the experimental design criteria used may be arguably too strict for evaluating research efforts in the field compared to laboratory settings. The authors feel, however, that the training profession has a responsibility to do the best possible research on new methods in spite of potential field difficulties. While they commended each of the authors of these reports, McGhee and Tullar (1978) claim "Enough threats to internal validity were discovered in the designs used to question the reported results of behavior modeling training of managers. (p. 477). McGhee and Tullar (1978) summarize that conclusions based on the four studies they have reviewed should be "modest and cautious." (p. 483). Foremost among their conclusions was that "available scientific evaluations of behavior modeling training in industry contain no clear-cut evidence for its effectiveness as an industrial training technique. (p. 483). Suggesting that field research study results are more often relevant to real life situations than laboratory studies, they close by expressing

the hope that their efforts will encourage more field research in industrial training.

Phillip Decker, in the 1979 comment section of Personnel Psychology, published a brief article entitled "Modesty and Caution In Reviewing Behavior Modeling: A Reply To McGhee and Tullar. In his response, Decker agrees that in a literal sense, their conclusion is correct but suggests that the argument needs to be expanded beyond the industrial setting. Decker implies that by limiting themselves to the four studies conducted in an industrial setting, McGhee and Tullar are being too narrow in their evaluation of the effectiveness of behavior modeling. Decker (1979) claims "studies done outside the industrial context are acceptable as evidence bearing on the effectivenss of behavioral modeling." (p. 399). He cites a number of studies, Cooker and Cherchia (1976); Curran and Gilbert (1975); Malec, Park, and Watkins (1976); McFall and Twentyman (1973); Wolfe and Fodor (1977); and Stone and Vance (1976) in support of his claim. Decker's position is that while there is no single study which indisputably proves its superior effectiveness, there are a number of studies which together support the efficacy of behavior modeling.

The second general area of disagreement pertains to the nature of the behavior modeling method. The basis of disagreement can be divided into two areas. First, there is a bit of conflict about whether behavior modeling is a form of, and under the larger set of, behavior modification training. Secondly, there exists some disagreement around what Parry and Reich (1984) describe as inherent flaws of the method as well as what constitutes an effective modeling display.

There is general agreement that the early founders of the behavior modeling method are Arnold Goldstein and Melvin Sorcher. In their text, Changing Supervisor Behavior (Goldstein and Sorcher, 1973), they take the position that "using behavior modification principles as a basis for a supervisory development program, could be expected to improve the competence of managers to handle subordinates." (p. 23). These authors base this position on research studies in psychology that report success in changing behaviors involving difficulties with interpersonal or social relationships. Goldstein and Sorcher (1973) and Sorcher (1973) explain that, although it is confined to a business setting, the relationship between a supervisor and his subordinates is very much a social relationship. Thus, they have no reservations about aligning their efforts under the principles of behavior modification.

More recently, some behavior modeling authors have responded with sensitivity to certain criticisms of behavior modeling. The primary criticism seems to be that it is manipulative (Rosenbaum, 1979; Tosti, 1980). There has developed in recent articles, an interest in putting some distance between behavior modeling and what might be called a splash effect upon it from criticisms of Skinnerian theories about behavior modification. Robinson (1984) in explaining modeling states, "The social learning theorists distinguish between acquisition (learning) and reproduction (performance). Modeling is a vehicle for acquisition. Conditioning principles, with heavy emphasis on social reinforcers, tend to account for performance." (p. 8). Both Rosenbaum (1979 and Tosti (1980) explain that behavior modeling is not manipulative because it is not devious or insincere. Like other types

of training, it can be used to achieve negative or positive ends (and this is a repeated defense of behavior modeling); it can be used inappropriately and ineffectively. This line of explanation has lead to Kearsley's (1984) taking the position that "there is little relation between behavior modeling and behavior modification as they are used in practical settings (there are some theoretical commonalities)." (p. 112). These practical settings might be exemplified by Manz and Sims (1981) when they explain that the difference between vicarious (modeled) learning and operant theory is, while both place importance on consequences of behavior "in vicarious learning, the consequences are not experienced directly by the learner, but rather vicariously by observing the results of the model's behavior." (p. 108).

Examples of other criticisms are those of Parry and Reich (1984). In their article, "An Uneasy Look at Behavior Modeling," they state it can work, but only if certain shortcomings in the method can be overcome. These are "the modeling displays are simplistic, theory is lacking, classes are boring, wrong examples are not used, and transfer of training is weak" (Parry and Reich, 1984, p. 58-9)). As Tosti (1980), Rosenbaum (1979), and Parry and Reich themselves concede, these criticisms relate mainly to implementation and can be compensated for by systematic preparation, instructor skills, and organizational support for trainees. Parry and Reich raise three additional disagreements about the nature of the training method that are more critical. They claim that a printed script is the most appropriate medium to use to train for improving verbal behavior. This criticism is not based in fact, because stating that verbal behavior is the main

objective of behavior modeling is simply not true. This position denies the existence of any non-verbal behaviors that go into the social interactions that are integral to management. It also overlooks the fundamental value of modeling to the training method and the power of being able to observe a performance of the skills or behaviors sought. An omission of this magnitude suggests that these authors have strayed considerably from the theoritical underpinnings of this training method. Parry and Reich (1984) also identify issues of "role play vs. improvisation acting and skills vs. attitudes. (p. 61) as major flaws in the method. Certainly, these are issues of disagreement in training programs besides behavior modeling. The basis of contention is generally how to most effectively employ the key components of the particular training method, whatever its structure. Tosti (1980), Rosenbaum (1973), and Robinson (1984) have all taken clear positions about the needs for appropriate, systematic development and skilled, sensitive presentation of behavior modeling training. While it is clear that more research is needed, especially as this method expands into other fields (McGhee and Tullar, 1978 and Robinson, 1980), much of Parry and Reich's (1984) criticism can be negated by careful production and instructor skills.

The final area of disagreement concerns the nature of the modeling display. Zemke (1982) most clearly summarizes this into four main points. The first is "Dressing the set" (Zemke, 1982, p. 23) and deals with the background in which the model appears. There is some disagreement about how to manage the thin line between a believable setting and a distracting one. Some practitioners advocate using as

realistic a set as possible, even to the point of on location shooting. Others recommend a very plain, no irrelevant details, set. The second point of disagreement is that of "Perfect vs. Coping Performance" (Zemke, 1982, p. 24). Here the argument centers on believability. Some say that a perfect performance by the model is alienating, that a less skilled, coping performance will be more authentic. The opposition believes that the model should not be perfect, but should show mastery of the skills not just coping. The third point is, "Real vs. Neutral Content" (Zemke, 1982, p. 25). One side of the disagreement acknowledges that too much real content jeopardizes the trainee's attending to the process, but insists that models should be people in real settings, handling problems real to the organization using the training. The other side insists that anything but a neutral problem runs too high a risk of trainees attending to the problem content and not the learning points (it is interesting that both sides use the same argument to defend different positions). The last main point is "Negative vs. Positive Examples" (Zemke, 1982, p. 27). When building a modeling display, some practitioners say catagorically that showing people modeling the behaviors incorrectly is not facilitative of learning. Other experts hedge a little by saying that there may be times (like at the end of a program) where a contrasting performance of a less than effective way of handling a situation might be beneficial.

One expert said about this last disagreement, "The research is not clear..." (Zemke, 1982). This characterizes the whole area of disagreement about what constitutes the most effective modeling

display. There just is not enough information about the particular details of each of these four points to determine that only positive models should be shown or that mixed behavior by the model is significantly more effective than "positive" behavior. More research is needed to evaluate these effects on learning.

Rationals For This Research

Due to the widespread use of video models in various training applications, a greater understanding of a possible relationship between the nature (or characteristics) of the video modeling display, the level of complexity of the task being trained and therefore the effectiveness of types of models, is needed. The goal of this research is to investigate more closely an aspect of behavior modeling training that deals with the nature of the modeling display. Specifically it is an attempt to add to the body of knowledge about the efficacy of types of models and their use in training for simple and complex tasks. It is intended to address and provide clarity to the controversy around what Zemke (1982) calls "Perfect vs. Coping Performance" (p. 24) by the supervisor in a modeling display. (Throughout this research and this document the modeling display types will be referred to as positive only and mixed because of the value ladden potential of the term "perfect".)

Decker and Nathan (1985) state, with regard to the issue of mixed vs. positive only modeling displays, "There is no research in the industrial area and very little in the counseling area that gives us guidance here." (p. 119). There are various studies involving aspects of video modeling (e.g. FIFFE and GEI, 1979; McFall and Twentyman, 1973

and O'Toole, 1979). Other studies have been conducted that use a behavior modeling component in communication skills or interpersonal skills training (e.g. Cooker and Cherchia, 1976 and Curran and Gilbert, 1975). Still others have investigated the effects of certain retention aids like symbolic coding and rehearsal, on video feedback and rehearsal group size, on behavior modeling training (Decker, 1980, 1982, 1983). These have been primarily in the industrial setting and don't include research into the characteristics of the modeling display.

A few studies in the counseling area do shed light on a relationship between the nature of the modeling display and performance of trainees. The successful use of video modeling techniques has been well established as a component of microcounseling training by various studies (Ivey, Normington, Miller, Morrill & Haase, (1968); Miller, Morrill & Uhlemann, (1970) and Moreland, Ivey & Phillips, (1973)). A few studies, one using microteaching methods (Alssid & Hutchison, (1977); Cook & Kunce, (1977 and 1978) and Meichenbaum, 1971)) reported evidence of relationships between modeling characteristics and trainee performance.

Berliner (1969), working with the microteaching method, reported an increased ability of trainees to transfer the skill of higher order questioning to other tasks, when they had viewed a model performance composed of only positive examples of that skill. When training counselors in the skill of using open ended questions, Alssid and Hutchison, (1977) reported no significant difference between a positive only model and a corrective (mixed) model and only the positive model

Kunce (1977), in training to reduce anxiety in beginning couselors, compared expert (positive) and coping (mixed) models. Trainees who viewed the expert models and the coping models both exhibited reductions in anxiety. Only those who viewed the expert models showed a significant reduction. In a second study Cook and Kunce (1978), replicated the results of the earlier (1977) study. They investigated the existence of paramodeling effects after viewing video models in beginner counselors. The researchers offer evidence that "paramodeling effect consistently occurred as a result of the type of filmed model to which one was exposed." (p. 65). This second study showed a significant performance of paramodeling behaviors among the trainees who viewed the expert model. However, Meichenbaum (1971), in training to reduce avoidance behavior reported evidenced that viewing a mixed model might be more effective.

Outside of the counselor training setting, behavior modeling practitioners remain divided about the nature of the modeling display.

Decker and Nathan (1985) suggest that a perfect model might be alienating to trainees who will be reluctant to seriously try the key behaviors if they observe them performed flawlessly. They feel that a coping model is best. Manz and Sims (1981) suggest that trainees can identify more with a model who struggles and overcomes an apparent problem than one who has complete mastery of the situation. Still others feel that the design of modeling displays will remain more "art than engineering" (Zemke, 1982, p. 23) until more empirical research is performed.

Clearly there is a continued need for further research into this aspect of behavior modeling. There continues to be widespread use of video modeling in various training applications. Studies from both the industrial and counseling areas have contributed much to the knowledge of the field. The works of Berliner (1969) and Cook & Kunce (1977, 1978) involve questions about the types of video models being used in training for complex tasks. Alsoid and Hutchison (1977) looked at the use of two types of video models in training for a simple task. A study which focuses specifically on a comparison of types of modeling displays for types of task could make a meaningful contribution to the controversy around this problem.

Variables For The Research

Independent variables for this study were represented in the types of training procedures given to participants. The independent variables were the types of modeling displays viewed (either mixed or positive only) and the tasks administered (either simple or complex). The dependent variables were the performances of the participants by task. Participants were divided into treatment groups and controls. A contingency variable for this type of study would be the background, i.e. education, number of years experience as a supervisor and any previous exposure to the Thomas Kilmann model, of the participants. Another contingency variable was the scoring of the video taped role plays by the independent raters.

An attempt was made to control for the modeling displays by following the guidelines of practioners (e.g. Zemke (1982) and Decker and Nathan (1985)) on issues of identification, clarity and display of

key learning points as well as progression from simple to more complex and potential distractions. Further control efforts were made throughout the production of the displays by using the same actors in the same settings with the same conflict situations but with clearly different performances (verbal and non-verbal) by the supervisor to distinguish between the mixed and positive only versions. Finally, the treatment groups did not know which version of the display they were viewing. Due to the fact that they were divided into smaller groups (to make the role plays more managable for one trainer) the issue of there possibly being two different versions of the modeling displays did not arise. Table 1 shows the organization of the pairing of modeling displays (treatments) with the tasks. The design of the training workshop allowed for each group to see two modeling displays and to perform two tasks (one version of each). Control groups, of course, were simply given both tasks without training.

TABLE 1: Treatment/Task Organization

Group 1	Group 2	Group 3	Group 4			
Positive	Mixed	Mixed	Positive			
Treatment	Treatment	Treatment	Treatment			
Simple Task	Simple Task	Simple Task	Simple Task			

HYPO. #1: For a simple task (independent variable), no significant difference in trainees performance (dependent variable) across treatments (independent variables).

Mixed	Positive	Positive	Mixed			
Treatment	Treatment	Treatment	Treatment			
Complex Task	Complex Task	Complex Task	Complex Task			

HYPO. #2: For a complex task, the positive treatment will result in significantly higher performance by trainees.

CONTROL GROUP 1 CONTROL GROUP 2

Simple Task

Complex Task

Complex Task

HYPO. #3: Treatment groups will perform significantly better than controls on both tasks.

The dependent variable, the participants' performance, was controled for threats to internal validity by their being randomly recruited for the training through the Office of Staff Training and Development. Departments across campus were invited to participate in a series of training workshops on Communications Skills of which Conflict Resolution was one segment. The control group participants were volunteers, largely from among the professional staff. Because of the way the various subjects were registered for the training, there was no way of controlling for their backgrounds and previous experience. All subjects were equally at risk to have been exposed to the Thomas-Kilmann model. However, the Staff Development Office had not previously offered a conflict resolution workshop using this model at the University. The final contingency variable, the scoring of the role plays by raters, was controlled for by a pre-scoring training/practice/discussion session and by a shorter re-training session at the midway point during scoring.

The raters had to agree to within 4 items of a list of 22 (or 82% of the items) in at least three of five practice role plays before proceeding to score.

Specific Questions

The specific questions relevant to the variables of this research are as follows:

- 1. Which type of modeling display (mixed or positive only) will prove to be the more effective instructional tool in training for a simple task?
- 2. Which type of modeling display will prove to be the more effective instructional tool in training for a complex task?
- 3. Will there be any significant difference between the performance of the treatment groups on either (or both) task(s) as a result of a particular treatment?
- 4. Will there be any significant difference between the performance of the treatment groups and the control groups.

Hypotheses

After an extensive review of the literature resulting in the above questions the following hypotheses were formulated. In a behavior modeling type training setting using video modeling displays, it is hypothesized that:

- 1. When training for a simple task, there will be no significant difference in the performance of trainees who view a mixed vs. those who view a positive only modeling display.
- 2. When training for a complex task, trainees who view a mixed model will perform significantly higher than those who view a positive only display.
- 3. Trainees in both treatment groups will perform significantly higher than the no treatment group for both the simple and complex tasks.

It is evident from the proceeding chapter that behavior modeling, and video modeling in other types of training, have been widely used since the mid 1970's. While behavior modeling has had many very glowing reports in the literature, some have cast doubt upon its efficacy. Numerous questions have been posed about various aspects of behavior modeling as a result of the debate described herein. Since the training continues to be widely used, the need continues to be very real to try to answer these questions. Chapter 3 will describe the present study in detail. It will focus on the design of this research and demonstrate how this study was organized and administered.

CHAPTER 3

DESIGN OF THE RESEARCH

Having described the history of behavior modeling and established a context for this research in Chapter 2, this chapter will describe in detail this study. It will provide a background as to how the study was designed and a case history of how it was conducted. The final portion of Chapter 3 is a section on the various complications encountered during this research.

Background

This study was an applied research study which used the treatment groups vs. control group model with two types of treatments testing for two types of tasks. The study was set within a training program sponsored by the University of Massachusetts Office of Staff Training and Development. As part of a series of training workshops on Communication Skills, a workshop was offered for supervisors on Conflict Management. It was within this setting that the study took place. While a full behavior modeling training program could take several work days, these workshops were four and one half hour sessions. The realities of the University work setting precluded the supervisors being available for a multi-day program. However, the nature of this study is such that it didn't require the full behavior modeling program to test the hypotheses.

Via discussions with Staff Training and Development about a mutually beneficial effort, the area of conflict management emerged as a topic with the potential to meet the needs of all factions involved.

A large number of supervisors at the University would be exposed to training. Staff Training and Development would add a conflict management workshop to its Communication Skills program and a population of supervisors would be available for this study. Over the course of several hours at a number of meetings, a design for a training workshop was developed that would meet the various factions needs. Each department or office contacted by Staff Training and Development would be informed that this workshop will include video taping. Participants would be informed at the outset of the workshop of their option to allow their role play to be used in this study. At these meetings we discussed the order of presentation of the workshop to insure that none of the other pieces impacted this study. For example, looking at the workshop outline, one can see that it included viewing two video models. The first video model had to be viewed prior to the lecturette on the Thomas-Kilmann Conflict Response model. This was due to the fact that the simple task test would ask participants to list the Thomas-Kilmann five conflict styles. Likewise the complex task video and test had to be after the Conflict Style Inventory and lecturette as well as the lecturette on the competitive style so that participants could have a better understanding of the Thomas-Kilmann model and the competitive model in particular. The role play portion of the workshop also had to be surrounded by enough time to allow for mental rehearsal and peer feedback.

The Sample

The Office of Staff Training and Development advertised the availability of this training and informed upper level managers through

publications and personal contacts. In addition, the Professional Association at the University of Massachusetts, Amherst (PAUMA) was asked via its executive board to invite participation in the study by professional staff. While random assignment of trainees to groups would have been more desirable, the realities of the workplace made this logistically impossible. The population was made up of supervisory staffs of a number of campus departments. It was diverse to the degree that each group will have supervisors of various levels of responsibility from functional, to floating line, to managerial. This population was representative of the University's supervisory staff. The sixty subjects who participated were supervisors from a wide variety of offices and departments on campus. These included Administrative Services, Continuing Education, Food Services, Housing, Campus Security (police), and the University Library.

Workshop Design

Very early in the process of organizing this study, it was decided to try to test the effectiveness of types of models in a behavior modeling type training. After consultations with Faculty advisors, and representatives from the University of Massachusetts School of Education Research Consulting Service (hereafter referred to as Research Consulting Service), and reviewing the literature, a study was designed that would test two types of video models when used with two types of tasks.

The initial goal of this study was to try to learn more about which type of model would be the most effective teaching tool. Later, another dimension was added. This was connecting the type of model

being tested to a type of task. What this study is designed to research then, is a comparison between a mixed model and a positive only model when used in training for a simple task and a complex task.

The data for this study was collected within the context of a training workshop for supervisors on conflict management. Each treatment attendee of the workshop was informed at the outset that it was both a legitimate Staff Training and Development Office offering and the source for a portion of the data for my doctoral study. Each participant was given a consent form and a demographics form (Appendix A) and asked to read and complete both. (The demographics form anonymously.) In each workshop it was explained that the commitment to do the training was first priority. If an individual did not want to give permission to use their data then they simply should not sign the consent form. However, training would proceed regardless of who signed the form, and in fact, it was routine not to review the forms until after the workshop. Only those subjects who consented have been used in the data analysis. Virtually all participants consented.

The workshop design required at least two leaders, or trainers when the number of subjects was greater than ten. Ms. Diane Flaherty,

Assistant Director of Staff Training and Development, acted as the co-trainer in all of the large sessions. This conflict management workshop was based on the Thomas-Kilmann conflict response model. (An outline of the workshop is listed in an addendum to this chapter which includes a brief description of each section.)

Producing the Models

The video models are an extremely important part of behavior modeling training. It is therefore worthwhile to describe in some detail the models and aspects of their production that were taken into account. The following will demonstrate the type of attention necessary for production of this type of training tool.

Behavior modeling training requires access to a good deal of video equipment. Playback equipment and cameras are required for viewing the models and recording the role plays during the workshop. Access to production equipment is also required prior to the training to produce the models.

From a review of the literature, a number of things about the nature of the video models are evident. They should be of as high a quality as possible, be realistic in their locale and settings and above all believable for the work environment hosting the training. The first step in producing the models was a needs assessment. In negotiating with Staff Training and Development, some departments on campus were identified as likely to respond to or be approached for this training. Going through management protocol, several supervisors from these departments were interviewed about the kinds of conflict situations they have with employees they supervise. Via this process two topics were selected that were realistic to the state employment, University setting. The first is regarding a supervisor being asked for the same day off by two employees. The second is an employee not completing a high priority task as assigned. The first model would be entitled, "The Day Off," the second, "The Mailing."

Recruited from the University staff and shot in offices on campus, the models were produced using people and areas that would not be involved in the training. The goal was to produce models that contained people and settings with which the trainees could identify. Yet, at the same time, not to have staff and scenic distractions that were so close to the trainees that they focused on aspects of the production that are non-essential to learning the key behaviors being displayed. As Bernard L. Rosenbaum of MOHR Development is quoted by Ron Zemke (1982), "When the trainees can say those are our people, in our environment, handling our problems, they can't take their eyes off of the screen." (p. 24).

Each of the model video tapes, which run between 4 and 8 minutes, took approximately one working day to shoot in a pre-edited form.

Editing the modeling tapes into their final form required approximately one working day for each pair of tapes. The shooting and editing time alone required approximately four working days. One important factor in the production time was that each tape had to be produced in two versions. The simple task (completing a brief paper and pencil instrument) and the complex task (the role plays) each had two versions of a video model. Therefore each model had to be produced with a supervisor performing in a mixed (less than confident; seeking "expert" advise and then performing confidently) and a positive only (performing the key behaviors competently and confidently) version. In the positive only version, the expert explained the key learning points to the supervisor by commending him, clarifying what he had done and informing him of the Thomas-Kilmann conflict response style he had used

and the other styles. In the mixed version models, the supervisor handles the situation and through a combination of the actions, hearing his thoughts and the dialogue, the viewer sees him as unsatisfied with the result. The supervisor seeks the advise of an expert and when later confronted with an identical conflict, handles it more competently in a competitive response style. Since the supervisor is played by a male in each video model, females were incorporated into each model. Two women played employees in the simple task models and the "expert" (or supervisor's boss) was a woman in both versions of the complex task videos. Viewing the models is, of course, essential to understanding their organization and production levels. In order to provide the reader with some basis about the models, a brief description of each follows.

The simple task model was designed and produced to introduce the trainees to the five Thomas-Kilmann conflict response styles. The simple task being tested was the trainees ability to list these five styles immediately after viewing the model. Each model used superimposition over the video program of a single word at the moment that the expert described each style separately. Each superimposition was of one stationary word, fixed in position at the center bottom portion of the television screen. Each superimposed word was the same color and was held in place for approximately the same length of time (no less than 4 seconds; no more than 10). The length of time the word is held on the screen is in large measure a result of the length of the expert's dialogue about that style.

For the simple task, the video model shows a supervisor dealing with the conflict of receiving in person requests from two different staff members for the same day off (hence, "The Day Off"). Although a number of alternative solutions could have been possible, an element of heightened need was built into the scenario by the supervisor having a big job that had just arrived. In the mixed version the supervisor grants the first employee the requested time off and then when the second employee requests time off the viewer hears the conflicted thoughts of the supervisor as he basically talks himself into granting the request and decides to stay late and do the recently received job himself. What makes this a mixed version model is that the supervisor behaves in a very non-assertive way. The viewer sees him non-verbally pull away from the employee and rub his chin in a worried state. viewer hears the supervisor's thoughts as he thinks, "why can't I say no?" The scene cuts to another office where the supervisor asks an expert for advise on how to keep from putting himself in this position. The "expert" explains the Thomas-Kilmann model and the five key words are superimposed on the screen as the expert said them. scene cuts to a graphic that reads, "Some time later" and the supervisor is confronted with the same problem. The viewer hears the supervisor's thoughts as he recalls the talk he had with the expert and he handles the situation to the supervisor's satisfaction. In the positive only version the supervisor handled the same conflict situation but refused the second employee's request. What makes this a positive only version of this model is that the supervisor asserts his need to have the second employee in work to do the newly arrived job

request. The viewer sees the supervisor being very calm, sitting forward and speaking directly to the employee but sticking to his position of not granting her the requested leave. The "expert" (the viewer is lead to believe by the dialogue that the expert has observed this exchange) reviews the same Thomas-Kilmann model but within the context of commending the supervisor and informing him of the conflict response styles.

The complex task model was designed and produced to introduce the trainees to the characteristics of the competing style from the Thomas-Kilmann model. In discussions with line supervisors on campus, this seemed to be a style which they felt they would like to develop more ability to use. Due to the limited time departments were willing to have their supervisors' in training the Staff Training and Development office felt that the competing style was best suited as the focus of the second half of the workshop. Since Thomas-Kilmann explain the competing style as being highly assertive and low in co-operation, various studies, texts and articles on assertiveness, assertion training and managing assertively were consulted (in addition to the brief information in the Thomas-Kilmann model) to develop characteristics of a competing management style. These characteristics became the key learning points in both versions of the complex task video model.

For the complex task the conflict that the supervisor faces is increased in difficulty over the simple task model. Here the supervisor is shown dealing with an employee who is reluctant to perform an assigned task. The task is to mail out a document to each

department on campus (hence, "The Mailing"). An element of heightened need was added to the scenario in that the supervisor was responsible for the document getting mailed out before the end of the present workday. The production style is similar to that of the simple task video models.

In the mixed version the supervisor approaches the employee with a request to do the task. The employee reluctantly agrees, but never does the assigned task, and the supervisor non-assertively responds throughout the day. This is displayed by the supervisor being shown over the course of the day as approaching the employee several times. In each case the employee protests the task by saying things like, "This really isn't my job; can't you get someone else to do this?; I've been busy with other work you assigned to me." The viewer sees the supervisor respond to the employee with a non-competing style. He doesn't state his need clearly, is apologetic and basically abandons the task to the employee by asking him to "see what he can do" about getting it done. This model continues with the supervisor doing the mailing himself and the "expert" explaining how Thomas-Kilmann's competing style might have helped with this problem and informing him of its characteristics. As in the simple task mixed model, the scene cuts to the graphic, "Some Time Later...", and the viewer sees the supervisor approaching the same employee with the same type task. This time the viewer hears the thoughts of the supervisor after the employee protests being assigned the task. The supervisor states to himself that he is the supervisor and has the right to ask this employee to do this task. Then the supervisor states that "he doesn't want to bring

anyone else into this" (the employee protested that it should be someone else's job). He then restates his need very clearly, he did not apologize and does not back down for his request.

In the positive only version of this model the supervisor handles the employee's protests initially in a competitive style. He states the task clearly, doesn't apologize or rationalize and he doesn't back down. The scene cuts to the expert explaining to the supervisor that she observed him handling the situation with the mailing and she reviews the characteristics of the competing style while describing how she saw him handling the situation. The production style of this model and the positive only version were very similar to the simple task model. Table 2 lists the key learning points for both the simple task and complex task. These are the words and phrases that were superimposed identically in each version of the video models for each task.

Key Learning Points

TABLE 2

Simple task	Complex cask
Competing	Be Assertive
Avoiding	State Position Clearly
Compromising	Don't Back Down
Accomodating	Don't Apologize or Rationalize
Collaborating	If necessary, identify your
	right to ask that this be
	done

Organizing/Collecting Data

As has been mentioned earlier, this study resulted in three types of data. The consent form and demographic information form were completed and collected at the beginning of the workshop. Each control group member signed a consent form and completed a demographic form (see appendix A). The simple task data was from a brief paper and pencil instrument which each trainee completed anonymously. This was collected at the end of that section of the training workshop. The controls also completed this form without any information beyond the one sentence typed on it. All simple task forms were retained in groups by either control, simple task mixed (model viewed) or simple task positive (model viewed). This was made possible by the division of the large trainee group into two small groups for viewing the video models and by close attention to which of the two versions of the same model the groups were viewing.

The final piece of data was the video taped role plays of the trainees. Immediately after each workshop the consent forms were matched up with role plays. Separate video tapes for each treatment group and the control group were kept. This was insured by careful preparation and organization prior to every workshop to insure that the tapes were in the proper sequence and with the necessary treatment groups. All consent forms and tapes were stored in a locked limited access file on University premises when not in use.

A role play identification system was developed which would allow for the assignment of an alphanumeric to each role play. Each group was assigned a letter from the alphabet in an order as follows: A = mixed, B = positive, C = control, D = mixed, E = positive and so on through the alphabet. Next a four digit number was paired with the letter in order to provide all sixty role plays with an identification that could be used by the raters, blindly, but could be separated back into the treatment groups for computer analysis. Such an identification would be A1470, E5912, D3692 and so one. These identification numbers were drawn randomly into a list which was then used to compile all the role plays onto a pair of video tapes. As the role plays were being randomly compiled the identification number was superimposed on the screen, in an area of low visual interference, throughout the duration of that particular role play. The final compiled role play tapes were approximately two and one half hours in length.

The data from this study was collected as follows. The demographic information was provided anonymously, compiled and is in appendix A. The simple task forms were compiled by treatment and control group. A simple mean score was calculated and can also be found in Chapter 4. The video taped role plays were scored by two independent raters.

After studying numerous sources such as studies, articles and texts on assertiveness, an observation form was developed and the raters were recruited.

The raters were one male, a recent doctorale graduate from the University of Massachusetts School of Education and one female, currently a doctorale candidate at the same institution. Neither of them work at the University but both have many years experience as mental health professionals in the employ of the state of

Massachusetts. Prior to rating these tapes, both trainers participated in a three-hour training session with this researcher. The training was comprised of reviewing and discussing the observation form, then viewing a series of four practice role plays. The practice role plays were produced so that they portrayed a range of supervisor behaviors. This range progressed from very low competing to highly competing behaviors aligned with the key learning points being trained in the complex task. The raters scored each practice role play, discussed their scores and then reviewed the role play. This progressed throughout the practice role plays until the score sheets were very nearly identical and there was solid consensus as to how each role play should be scored. The practice role plays were discussed and rescored until the raters agreed to within four points in at least three of the five practice role plays. This session ended with another review of the observation form with the raters and researcher reaffirming and adjusting the form for perceptions and semantics without losing the intent to observe certain behaviors of the supervisors.

At a second session, the raters started to review and score the compiled video role plays. This session lasted one and one half hours. The raters were in separate rooms and their scores were held separately. Another meeting, a second scoring session was required. Before the second scoring session, another practice role play was viewed, scored and discussed with the researcher prior to continuing to view and score the remaining role plays. There were a couple of reasons for holding a second training session with the raters. The first was that a week had transpired and I wanted to re-establish the

raters in their roles. The second was an effort to minimize the erosion of scores in the start up of the scoring. After the first scoring session I reviewed the raters scores. I observed the majority of the most widely differing scores (greater than four points on a range of 22) to be among the first eight role plays scored. It seemed that the raters were closer after they had observed and scored a number of role plays. The second training session was an attempt to get the raters up to speed after having been away from task for a week.

All of the simple task and complex task data was delivered to the University of Massachusetts, School of Education Research Consulting Service for computerized data analysis.

Complications In Doing This Study

An important complicating fact for this study occurred at the outset. By its design, this study required a minimum of sixty supervisors. This meant that a very large organization would have to be found willing to participate in a training program. In addition, issues of resources (i.e. availability of video equipment and additional trainers) were also present due to the nature of behavior modeling training. The original design was to conduct the study within the context of a sexual harrassment training workshop for supervisors. Because of economic limitations on the part of the researcher, the study had to be done in the western Massachusetts area. Several large organizations (corporate and municipal) were visted and approached on the basis of free behavior modeling training, tailored to meet the organization's climate and needs. There was no interest. The University was already involved in a major training effort on sexual

harrassment but the Staff Training and Development Office was interested in the training as a part of its Communication Skills offerings. Conflict management was settled upon as the topic.

Even though the University was a large enough organization to have the minimum sixty supervisors there were a variety of problems getting them into the training. Some departments could only do the training during the summer, others could do it during the school year but not the summer. There were also problems getting department managers to agree to participate. One department felt they were "over trained." Another manager agreed and later recanted. There were a variety of field problems with room reservations, equipment scarcity, and even one miscommunication about the time a workshop would start. A fire evacuation of the building during one workshop should not be omitted.

Another complicating factor of this study was the logistics of equipment. Behavior modeling training requires video equipment for producing the models, playing back and for recording the role plays of trainees. In many cases departments provided numbers of supervisors that were too large to be trained by one person. This required two sets of playback and recording equipment. Producing the models was a major task. People had to be recruited to play the parts in the models. Due to the fact that the models had to be made when there were no classes at the University, faculty from the Theater department were not available. As a result staff had to be found who were willing, who fit the criteria of believability, and who could be coached to perform in the models.

A further complication of this type of study involved the control group. It was impossible, given the work environment, to obtain a control group of size (10 or 20 participants) for one session without training. Therefore control group participants were largely volunteers. There is no doubt that this factor has influenced the resultant data.

Finally an important complication arose with the raters and scoring the video taped role plays. Finding raters who were not associated with the University professionally, but who had appropriate training and professional experience was not easy. In addition, developing an observation form to use in scoring the role plays and then training and endeavoring to maintain interrater reliability were all very difficult tasks. While there is considerable literature on assertiveness training, most instruments used in these studies are self-assessment. The trainee completes a questionnaire about themselves. Gambrill and Richey (1975), for example, compare the responses of subjects with "normative data" (p. 55) collected from other populations, on a 40 item assertion inventory. Others used combinations of paper and pencil instruments and audio or video taping (McFall & Lillesand, 1971). It proved to be very difficult to develop descriptors for types of behaviors in the complex role plays. Despite the training, the discussions and the observation form, the raters still felt that part of their selection of items on the form was a "subjective call."

In attempting to control for interrater reliability one can encounter a range of techniques used in the literature. Unless a researcher can find and apply a pre-existing rating scale one must be

developed that fits the study. Hennerson, Morris and Fitz-Gibbon (1978) was helpful in both developing an observation form and in controlling for interrater reliability. The journal accounts of studies are not always detailed as to how raters were trained to insure reliability. There seems to be a wide range used to train raters in relevant studies. McFall and Lillesand (1971) used raters to score audio tapes of their subjects role plays. For this part of their data collection the raters "were untrained, having received only a one-page scoring manual providing two or three examples of each scoring category" (p. 318). Yet they report interrater reliabilities of ".92 for pre-test and .95 for post-test ratings." (p. 318). Decker (1984) seemed to train raters very similarly to that used for the present study (i.e. scoring practice tapes and using a checklist of model behaviors) and reported reliabilities ranging from .84 to .96 (p. 716). The reports of these studies do not go into detail about how the raters were trained or how the observation forms were developed. Clearly there is a direct relationship between rater training, the complexity of the observation form and rater performance that is reflected in the resulting reliability.

With the study completed, given the complications encountered, the next step was to have the resultant data from both tasks subjected to computerized analysis procedures. The next chapter (Chapter 4) is a report of the types of data collected, the types of procedures used and the results of those analyses.

ADDENDUM

WORKSHOP OUTLINE/DESCRIPTION

Introduction/Agenda/Consent Forms

Conflict Style Inventory (complete & hold)

View Simple Task Model & Complete Instrument

Score/Lecturette/Interpret, Conflict Sytle Invt.

-Break-

View Complex Task Model

Lecturette/Mental Rehearsal/Role Play

Feedback on Role Plays

Wrap-Up

Introduction/Agenda/Consent Forms

The workshop leaders introduced themselves, giving a brief background and how they came to be doing this training. An overview of the agenda for the workshop followed with a brief explanation of the role of video in the training. I then explained my interest in being able to use the participants' video role plays (complex task) in my study. Finally I asked each participant to read and complete the consent form and the demographic sheet. Without looking at them, we went on to the next piece of the workshop. (After each workshop I matched the signed consent forms with the video role plays.)

Conflict Style Inventory

This was a paper and pencil instrument developed by Ms. Diane

Flaherty that formed the base source of data for her doctoral study.

It asked the respondant to select one of five types of response to 20

scenarios of work place conflicts. Participants were asked to complete the instrument and then go no further.

View Simple Task Model, Complete Instrument

Participants were randomly divided into two groups and seperated into two rooms. Each room was furnished with a circle of shairs, a 19rd color television, VCR, color video camer, tripod, external microphone and mike mixer. Each group was told that they would be viewing a brief video tape that was a way of introducing the Thomas-Kilmann conflict response styles and that they would be given a brief test on those styles after viewing the video. Both small groups were then shown a brief (4 to 5 minutes) video model. (The video models and their production will be discussed in more detail later.) Each participant was then asked to write on a half page (see sample of simple task form, Appendix A) the five, one word, conflict responses they had just seen explained in the model. The small groups were then brought back together in one room to score the Conflict Style Inventory.

Score/Lecturette/Interpret, Conflict Style Inst.

Ms. Flaherty, at this point, gave an explanation of the scoring of the conflict style instrument and the participants each scored their own instrument. Then a brief lecturette was given on the five Thomas-Kilmann conflict response styles and their use in conflict situations based upon Thomas and Kilmann's research. The final piece of this section was to guide the participants through an interpretation of the scores recorded. This interpretation resulted in each participant seeing which style of conflict response (Competing, Avoiding, Compromising, Collaborating, Accommodating) they used

predominately and which one they used least. A side benefit of Ms. Flaherty's instrument was that it also gave the participant a seperate tally of which style(s) they used predominately with woman and with men.

Break

A short break was then taken generally after about 90 minutes. View Complex Task Model

After the break, participants reformed into their simple task groups and returned to the two seperate rooms. A lecturette was given to each group listing and detailing the key behaviors of the competative style of conflict response. Each group was shown a video model. Each trainer then lead a mental imaging exercise. This exercise was included to allow for symbolic rehearsal (Decker, 1980) in anticipation of the video role playing. The symbolic rehearsal exercise was presented in the following manner. The participants were asked to make themselves as comfortable as they could in their chairs and to close their eyes. They were next asked to imagine a situation. with someone they supervise, that they should have been more competitive in their response. (The participants's were also encouraged to use the situation they just saw in the model if they could not think of a more specific, work related one.) With their eyes closed, and as comfortable as they could be, they were asked to imagine themselves with this employee in the conflict situation. Then they were slowly guided through imagining themselves handling this situation using the key behaviors that characterize the highly assertive yet low co-operative, competitive conflict response style. These key behaviors are the same ones described in the lecturette the participants heard before viewing the complex task model. The participants were asked to pair up and then role play the situation they had imagined. Basically, everyone had a voluntary role play opportunity to be the supervisor. The supervisor always sat on the left of the two chair role play area which the video camera was recording. Participants were asked to take a few minutes to explain their role play scenario to their partner. (Many of the workshop groups were from the same department so it wasn't unusual for there to be very little time required to explain role play scenarios.) All subjects were given the opportunity to role play as the supervisor. This meant that in odd numbered groups a participant may have had the role of being an employee more than once. All role plays were recorded before any comments or feedback was given.

After rewinding the tape back to the start of that session, each trainer lead a brief discussion on constructive criticism. The workshop opening points on the role of video (and its potential effects) were re-visited. Specific care was taken to encourage trainees to be honest and helpful but careful to offer feedback without making the listener defensive. Each role play was then played for the group and the trainer lead a review and peer feedback discussion about the role play. Special emphasis was given to inviting the role play trainees to comment first after viewing themselves. The peer feedback discussions focused on how closely the supervisor held to the key behaviors listed (and symbolically rehearsed) as characterizing the competitive style.

Trainers endeavored to foster interaction among participants about issues that arose. Often peers made suggestions to the role play supervisor about alternate language or approaches. Verbal as well as non-verbal behaviors were included routinely in the peer feedback sessions. Each role play was discussed in full before moving on to the next. The role play supervisor and the group were verbally checked for completion before proceeding. This was done to insure equal time for discussion of each role play.

Wrap Up

The two groups were then brought together for a final thank you from the trainers and to answer any questions, and then they were dismissed. After each workshop the trainers discussed and reviewed the session. Areas of improvement were identified and we reviewed the participant consent forms to insure that I could identify each participant for purposes of inclusion in the video role play compilation tapes to be made later.

CHAPTER 4

ANALYSIS OF DATA

After looking at the design of this study, its history, and how it was administered as described in Chapter 3, the next step is to present the results. Chapter 4 will provide brief descriptions of the data gathering techniques as well as the results of computerized analysis.

The data from this study comes from two sources. These are the simple task test, a paper and pencil instrument, and the complex task test, the video taped trainee role plays. The data for this study was processed by the University of Massachusetts School of Education Research Consulting Service using S.P.S.S. version 9.0 (nos) on the University Computing Center CYBER system. The Pearsons correlation coefficient was used to assess inter-rater reliability. An analaysis of variance was performed to determine any significant difference between the mean scores of the groups. Finally, Scheffe's confidence intervals were administered to determine the existance of significant scores between pairs of groups.

Simple Task Test

The simple task data was compiled by recording the number of correct answers out of five on each response sheet. A sample response sheet is in the Appendix.) The response sheet reads simply, Thomas-Kilmann have identified five conflict handling styles, please list the five one word names of those styles (in any order). The treatment group participants each completed a response sheet immediately after viewing a version of the simple task video model.

The control group participants were asked to complete a response sheet without any other information. Sixty response sheets were processed.

Table 3 portrays the sums and the mean scores of each group.

TABLE 3

SIMPLE TASK DATA

Group	Sum	Mean	Std Dev
Simple Task Pos. Only	66	3.30	1.218
Simple Task Mixed	54	2.70	1.129
Control	9	.45	.686

Level of Significance: P < .05

The ANOVA procedure results showed a significance of F level of .001 for all three groups. The Scheffe confidence intervals procedure revealed that the simple task positive only treatment group and the simple task mixed treatment group scores were significantly different from the control group. However there was no significant difference between the treatment groups (with significance at a .05 level). Table 4 is a detailed listing of the simple task data.

Complex Task Test

The complex task data was compiled by averaging the total positive responses for both raters on each role play. Fifty-six role plays were rated. Four were unusable. (A sample score sheet of the Complex Task observation form is in Appendix A.) The complex task score sheet has, as headings, the five key behaviors displayed in the video models. Each of these five headings has listed below it three to five items which exemplify that behavior. There are twenty-two such examples in total. In developing the observation form, emphasis was placed on

TABLE 4
SIMPLE TASK SCORES

	Simple	Simple	
	Positive	Mixed	Controls
1.	5	2	0
2.	5	3	ő
3.	2	4	1
4.	5 5 2 3 4	2 3 4 3 3 4	1
5.	4	3	1
6.	5	4	Ó
7.	4		Ö
8.	5 4 3 4	3	0
9.	4	2	0
10.	5	2	Ō
11.	5 4	2	2
12.	3	5	0
13.	3 4	4	Ö
14.	2	2	0
15.	2	1	1
16.	2	2	0
17.	2		2
18.	1	3	0
19.	3	3	0
20.	3 3	3 3 3 3	1
	-		
	66	54	9
Average			
Score	3.3	2.7	•43

listing examples of behaviors which were both verbal and non-verbal and observable as the role plays progressed (as opposed to making the raters wait until the end of the role play to score it.) Based on reviewing the literature and discussions with the Research Consulting Service, additional emphasis was placed on keeping the observation form to a manageable length to facilitate its use by the raters. Of the twenty-two items, six are included to score for negative curvalinear or breaking role behavior by the supervisors. Examples of these would be under the heading, States Position Clearly; Allows/brings in outside topics or issues; also under Don't Back Down, Agrees to give task to someone else. Any or all six of these behaviors were deducted from the computerized data analysis. The Pearson correlation coefficient result was at .6048. The ANOVA procedure showed a significance of F level of .843 for all three groups. Table 5 portrays additional ANOVA results. The Scheffe confidence intervals procedure was not administered to the complex task data.

TABLE 5
COMPLEX TASK DATA

Group	Sum	Mean	Std Dev
Complex Task Pos. Only	273	14.3421	1.9512
Complex Task Mixed	279	14.6842	1.5475
Control	278	14.6053	2.1120

Level of Significance: P < .05

Tables 6 and 7 portray the statistical details of the raters compiled scores. The code column represents the positive score for role plays (after deducting the six negative responses). The absolute

TABLE 6
RATER 1 SCORES

RATER 1

VALID CASES 56

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
8.	1	1.8	1.8	1.8
9.	2	3.6	3.6	5.4
10.	1	1.8	1.8	7.1
11.	3	5.4	5.4	12.5
12.	4	7.1	7.1	19.6
13.	3	5.4	5.4	25.0
14.	12	21.4	21.4	46.4
15.	12	21.4	21.4	67.9
16.	10	17.9	17.9	85.7
17.	6	10.7	10.7	96.4
18.	2	3.6	3.6	100.0
TOTAL	. 56	100.0	100.0	
MEAN 14	•321	STD DEV 2.257		

MISSING CASES 0

TABLE 7

RATER 2 SCORES

RATER 2

· · · · ·

С	OD E	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	7.	1	1.8	1.8	1.8
	11.	2	3.6	3.6	5.4
	12.	2	3.6	3.6	8.9
	13.	7	12.5	12.5	21.4
	14.	8	14.3	14.3	35.7
	15.	18	32.1	32.1	67.9
	16.	11	19.6	19.6	87.5
	17.	4	7.1	7.1	94.6
	18.	3	5.4	5.4	100.0

TOT	AL	56	100.0	100.0	
MEAN	14.7	14	STD DEV 1.904		
VALID	CASES	56	MISSING CASES 0		

frequency column is the number of times that score occurred in the 56 role plays. For example, the first rater's results included one score of 8, two scores of 9, one score of 10, three scores of 11. The next two columns display the relative and adjusted frequency of each score or the percentage of times it occured. The last column displays the cumulative frequency.

It is important to note that both raters have a very restricted range of scores in the results. Rater 1 scored 35 of 56 role plays (or 63%) as either 14, 15 or 16. Rater 2 scored 38 of 56 role plays (or 68%) in the same range. This range restriction problem most certainly impacts the correlation between raters. In short, the restricted range of scores does not provide a wide enough window for the Pearson's R procedure to assess. The resultant .60 score for inter-rater reliability may not tell the complete story. Comparing the raw scores of the raters on paired role plays, we see that the raters were within four points or less of each other 80% of the time (45 of 56 role plays). In an effort to further clarify the reliability picture, the researcher (at a later date) also rated all 56 role plays with the same observation form. Making the same paired role play comparison, the result was that 86% (or 48 of 56) of the time the researcher's raw scores were within four or less points of both raters. This corresponds very well with the level of acceptability for paired scores set in training the raters. Table 8 is a detailed listing of the raw scores for all three raters.

The results of the statistical analyses of the average of raters scores showed no significant difference among the three groups. An

TABLE 8
COMPLEX TASK SCORES

Role Play			
ID #	Rater 1	Rater 2	Rater 3
* E4703			naver 3
R5255	11	10	5
L9076	7	9	3
^M J7036 -	9 12	9	5 3 5 14
B3270	10	13	
01417	5	10 4	10
▶ J1353	12	11	3
M G4813	11	14	9
- L8158		9	3 9 8 8 7 3
I5186	9 7	6	7
L7836	8	7	3
D8912	11	14	12
₩9194	8	5	7
Z1249	10	10	10
H2748	12	14	7
★ A1470 ★ E5912	8	5 9	3
™ D3692	10	9	10
→ H1482	13 9	13	13
X6391	11	10 11	9
M M9258	11	14	10 11
+ T7173	10	12	
+ Q3538	10	10	9 8 8
M \$5750	9	10	8
K8114	12	13	10
C7768	9	11	7
P2528	11	11	10
N2469	10	12	6
- F5814	9	8	8
+ W1323	8	6 8	11
c F2113	8		10
→ B8252 → N3006	9 8 8 8 9	9 11	12 8
M M3262	10	12	10
U4119	9	9	11
M ¥1147	9 11	12	11
U7972	9	12	10
C3641	10	10	6
R4649	9	10	6 8
08448	10	10	
¥4983	11	10	10
Q4131	8	10	10
B2079	10	11	11
F4185	10	12	11 8
T8083	7	5	0

(Continued on next page)

TABLE 8 (Con't)

M A1852	7	6	7
→ H6925	12	14	14
I6047	11	11	11
n P3179	10	12	10
n G5814	11	12	11
n D 5680	10	11	12
U9972	9	9	10
R9669	10	11	8
M A1372 M V1876	9	10	5
+ Z 2392	11	12	8
<u> </u>	9	11	10

analysis of each rater's individual scores showed the same, non-significant result. These results are confusing at the least and pose some interesting questions. These include questions about the feasibility of using this research method for so complex a task and questions about the efficacy of the behavior modeling technique.

What is the relationship of these results to the problem posed in Chapter 1? How does that relate to the lack of empirical data on the relationship between the nature of the video modeling display and trainee performance? What do these results contribute to the controversy regarding the nature of the video model? How does this study fit in with others reviewed in Chapter 2? Having conducted this study, what learning can be offered to future researchers? Responding to these and other questions is the goal of Chapter 5.

CHAPTER 5

INTERPRETATIONS AND CONCLUSIONS

Interpretations

The purpose of this study was to compare the results of trainees who performed both a simple task and a complex task after viewing one version of a video model for each task. The goal of the simple task test was to compare the trainees' ability to recall key words superimposed on the screen between those who viewed a mixed model vs. a positive only model. The goal of the complex task test was to compare the trainees' ability to role play a conflict situation, which required a competitive supervisory style, using the key behaviors viewed (and superimposed on the screen) in either a mixed or positive only video model. The performance of the treatment groups was compared with that of the non-treatment controls.

With the widespread use of video modeling there is a clear need for more information about the effectiveness of types of video models when used in training for types of tasks. The study was designed to add to the evidence, supported by research, that might serve to inform practitioners of behavior modeling training about the effectiveness of the video models used. The general assumption from which hypotheses were derived was that, while for a simple task the type of model might not be a significant independent variable, it might be for a complex task.

The hypothesis for the simple task was that there would be no significant difference between the performance of trainees who viewed a mixed vs. a positive only model. Sixty participant responses were

analyzed. The resulting data analysis supports the hypothesis. Both treatment groups performed significantly better than the control and there was no statistically significant difference between the mixed model (mean 2.7) and the positive only model (mean 3.3). Testing for trainee recall immediately after viewing the model is clearly a simple task. Video modeling is used in training for various types of simple tasks (i.e. those which require little or no interpersonal skills). While the positive only group did score somewhat higher, on average, than the mixed, the lack of a significant difference seems to indicate that for lower level tasks, one can not predict that a type of model will be more effective. The simple task portion of this study was a very basic design and process. As a result, it may also be limited in terms of generalization. However, the evidence suggests that the controversy over the effectiveness of video modeling displays can be more meaningfully focused on questions in relation to complex task training.

The hypothesis for the complex task was that trainees who viewed the mixed model would perform significantly better than those who viewed the positive only model. The data from fifty-six rater-scored role plays was analyzed (four of the role plays were unusable). The interrater reliability was at a .60 level as determined by the Pearson correlation coefficients procedure. (A level in the range .7 to .9 is considered highly reliable for this type of design.) The mean scores for the three groups were 14.6842 for the mixed treatment, 14.3241 for the positive only and 14.6053 for the control. Although the mixed treatment group did perform slightly better than the positive only

group, there was no statistically significant difference. Therefore, the resulting data analysis does not support the hypothesis. However, several conditions that impact on these results need to be discussed.

The first is relatively low interrater reliability. There was a very limited range of scores recorded by the raters. One rater scored 63% and the other scored 68% of the 56 role plays as either 14, 15 or 16 from the list of 22 items on the observation form. This limited range of scores effects their correlation to the extent that there isn't enough variety in the scores for a statistical procedure to fully assess. A comparison of scores by paired role plays showed that 80% of the time (45 of 56 role plays) the raters were within four points or less of each other. A third rating of all the role plays was performed by this researcher. In 86% (48 of 56 role plays) of the cases, the third score was within four points or less of both rater 1 and rater 2. While the statistical analysis resulted in a low inter-rater reliability, the Pearson procedure is clearly impacted by the restricted range of scores. This level is consistant with the raters training which was to be within four points or less on at least three of five practice role plays. Possible explanations for this result are:

- 1. The raters were inadequately trained.
- 2. The observation form was unclear to the raters.
- 3. The behaviors being assessed were too complex to quantify via this methodlogy.

The raters were trained over the course of several hours during which practice role plays were viewed, scored, discussed and reviewed

until an acceptable level of agreement was attained. Additionally, the rater training session discussions included the observation form. Rater's input regarding semantic alterations which would improve their understanding of the behaviors being assessed was incorporated. The observation form was revised, without sacrificing its goals, to facilitate the raters ease of use. In the final analysis it would seem that at least part of a lack of significant results can be attributed to a combination of items #2 and #3 above. The observation form was developed after consulting an array of literature consisting of both studies (e.g. Bodner, 1975; Galassi, Delio, Galassi and Bastien, 1974; and Gambrill & Richey, 1975) and texts (e.g. Bower & Bower, 1976; Burley-Allen, 1983 and Smith, 1975). However, the measurement of behaviors such as assertiveness (with its encumbant verbal and non-verbal characteristics) via independent observers (as opposed to self inventory) remains a very complex task. It would appear that the method of assessment used involves a degree of subjectivity among raters that is very difficult to control.

A second condition that affected the significance of these results was the control group performance. Without any training, the control group scored extremely well (mean 14.60). The observation form may have subtly influenced control participants performance. The form is constructed to follow the key learning points of the video models. It progresses from simple to more difficult behaviors. The role play participants need to stay in role long enough for some of the items to be scored. For example, the tenth item on the observation form, under the heading Don't Back Down, is "Persists in stating need/want and time

frame. If the role play employee agrees to the supervisor's request without much resistance, the rater would never get a chance to check this item. The treatment group participants were coached to stay in role. Control group participants were given typed roles for both the supervisor and the employee, and no other information was provided. (A sample of both roles provided to controls is in Appendix A.) This process could have resulted in the controls staying in role longer than the treatment participants. Control role plays may have been scored higher simply because they stayed in role longer. (This may be a factor in the issues discussed above on range restriction in scoring.)

Another influencing factor was the demographics of the subjects in the control group. As was mentioned in Chapter 2, the control participants were all volunteers, predominately from among the professional staff across campus. It is reasonable to assume that professional staff who would volunteer to participate in a study like this would be from among the more highly skilled staff available and might simply be more effective role players (McGhee & Tullar, 1978). This assumption is supported in part by the fact that 60% of the control group participants had attained either a Bachelor's degree (25%) or a Master's degree (35%) while only 25% of treatment group participants had attained these educational levels (14% Bachelors, 11% Masters). The majority of treatment group trainees highest educational level was High School or G.E.D. (65%). Length of experience as a supervisor could also have had an influence. Here again the control group members had a slight advantage. Controls average length of term as a supervisor was 9.33 years, compared to the treatment's 8 years.

The third hypothesis of this study was that both treatment groups would perform significantly better then controls on both tasks. This was clearly the case for the simple task. However the resulting analysis of the data from the complex task does not support this hypothesis. Clearly the demographics of the control group participants and the influence of the restricted range of scores have had an impact on these results.

Conclusions

This study was an attempt to look closely at one aspect of the controversy about behavior modeling training. It fits into the field reviewed in Chapter 2 as part of a small number of studies that address the effectiveness of types of models in use with types of tasks. There are studies in this area that look at two types of model when used with only a simple task (Alssid & Hutchison, 1977) and those that look at only a complex task (Cook & Kunce, 1977, 1978 and Meichenbaum, 1971). This is the first study, of which the researcher is aware, that specifically endeavors to compare types of models for two types of tasks. The results of this research provide evidence supporting Alssid and Hutchison's (1977) study that there is no significant difference in the effectiveness of a mixed model or a positive only model used in behavior modeling training for a simple task. There was no significant difference in subject's performance on the complex task. This result poses more questions for the behavior modeling trainer and researcher.

It would appear that this study experienced some of the same problems and threats to internal validity as others. The field research nature of the setting made it difficult to have a design that

was as tightly controlled as would have been preferred. As was the case for Campbell and Stanely (1963), random choice of groups was not as strong a control as random assignment of subjects to groups. Byham, Adams and Kiggins (1976) study has been questioned as to the degree of similarity of recruitment of the treatment groups and control groups. The point being that the more similar the recruitment the more effective research design (McGhee & Tullar, 1978). This was clearly a field problem with this study in that the treatment groups and control groups were not highly similar in how they were recruited. As was mentioned earlier, another problem with this study was with the instrument used to score the video taped role plays. The resultant range restriction problem may very well be the cause of the lack of a statistically discernable significant training effect.

Discussion

There is a great deal of opinion in the literature about the power of behavior modeling but there is limited empirical evidence to support this position. Consequently, there has been contention, if not confusion, about the method's efficacy. In support of behavior modeling, we have individuals like Decker (1979), Robinson and Robinson (1978), and Rosenbaum (1979). Questioning its efficacy, we have Parry and Reich (1984), McGhee and Tullar (1978), and Russell, Wexley and Hunter (1984).

The questions brought about by this study are; Is behavior modeling as powerful a training technique as we intuitively believe? Given unlimited time, resources and a sample available for an adequate period, would this study have shown behavior modeling to be a powerful

training technique? Does training for very complex interpersonal skills require more than the methodology used in this study to accurately measure performance? Is it possible that behavior modeling produces very positive reactions and some learning, but more than modeling is needed to produce behavior and performance changes?

This last question was also posed in a study by Russell, Wexley and Hunter (1984) wherein they conclude that "behavior modeling did not produce behavior and performance change" (p. 479). While modeling provided a good base for cognitive learning, their results suggest that behavior modeling could be improved if it were combined with other techniques the results of this present research suggest support for those of Russell, Wexley and Hunter (1984).

In the course of this study, much was learned that might be useful to articulate for future researchers. If one is considering behavior modeling training, be prepared for it to be a very complex undertaking. An example of this is the production of video models. The trainees in this study seemed to be very attentive to the staff and settings of the video models. Therefore, it is important that the video models used should be as authentic as is possible. If one had to sacrifice a production aspect of the models, it is suggested that a lower then broadcast quality be accepted if that means being able to get on-site production.

Assuming that there is no budget for outside production services, the range of skills required of the behavior modeling trainer is quite broad. These run from producer/director to videographer; to post-production video effects; to training workshop presentation with

its requisite group leadership/facilitation skills. As was mentioned earlier, behavior modeling training is a major undertaking. Even if the organization can provide the technical resources required, the training workshops can require a team of trainers. This is primarliy determined by the size of the training group. Each video role playing group really needs a trainer attending to the process. It is important to have the trainer there to keep people on task and in role as well as managing other group dynamics. One trainer can manage no more than twelve participants in a role playing group, and even that is a large group.

Allowing sufficient time for the role plays is vital to the design and the number of trainers required. If a training group of twelve is used, that would make six pairs with each participant role playing as the supervisor. Let us assume a maximum length of time per role play is five minutes. (Most of the role plays in this study were under this length but some were quite near. The trainer can not cut a role play off based simply on length. That simply would have too damaging an effect on the whole training climate.) At this rate the role plays alone will run one hour. This means one hour to role play and record and one hour to play back. Of course each role play supervisor receives peer and trainer feedback on their performance. Again, let us assume five minutes of feedback per role play. This adds an additional hour. The role play and feedback section of a training program of this nature could conceivably run two to three hours. This is a block of time that a program designer should not want to interrupt with a lunch break, another topic, or task. Having a team of trainers, and thereby

smaller role play groups would reduce this portion of the program. The resultant benefits would be a more managable task for the trainers, a lower trainer to participant ratio, and more time available for the role play/feedback portion of the training.

It would have been preferable for this study to have had two full days of training. This would have allowed sufficient time to take full advantage of the role play, feedback, and role play dynamic of behavior modeling. This study was adversely affected by having only half-day training sessions. The participants were unable to derive the full benefit of the training as it was designed. There also might have been more variability in the role play performances comparing day one with day two. The researcher should note other difficulties encountered in this study. It is strongly advised that future studies be designed to accurately assess very complex behaviors such as rating both verbal and non-verbal behaviors in areas like assertiveness. Another consideration with this type of study is the dilemma of making the task narrow enough to facilitate ease of scoring and yet maintain it as a complex task requiring interpersonal skills.

Behavior modeling continues to be widely used without the benefit of a broad base of empirical data to resolve the persistent controversies. The debate continues about this training method as witnessed in an article by Rosenbaum (1984) and a study by Russell, Wexley and Hunter (1984). The former claims that behavior modeling is a powerful method for interpersonal skills development, and the latter questions the singular use of behavior modeling to effect behavior and performance change. Reviewing the literature, one develops the intuitive belief that this method works. However, after conducting

this research, that belief has been called into question. Based on my experiences with this study, more questions have been raised than answers. It is clear that more research is needed, especially into the use of this method in training for complex tasks.

On a completely personal level, there are a number of things that I would like to share with the reader. The experiences which resulted from this study ran the gamut from challenging and exciting to boring and depressing. Many of the experiences involved in this project were fraught with learning, some of which can be seen only through the clarity of hindsight. The process of doing this doctoral study was a very long one, seven years from my first course to successful oral defense. Along the way, I maintained a full time professional position, became a father twice, and came very close to giving up on more than one occasion.

Looking back, were I to repeat this project, I would definitely do a number of things differently. I certainly would approach the whole training design and study design with the benefit of actually having done both. Regarding the training, I would start much earlier establishing contacts and making cold calls on local organizations. Instead of approaching these organizations with a training topic and package already researched, designed and organized, they should be approached about using a behavior modeling training package tailored to meet the organization's needs. If they had been approached on this basis, I feel strongly that I would have met with more success in my efforts to do this project in an industrial setting.

As for the tudy design, given certain very significant differences in the organization, I would most certainly do some things

differently. Having experienced field study problems, and threats to internal validity first hand, I can more accurately see a cause and effect relationship between study design and results. Some of the things I would do differently would be to incorporate a pre-test/post-test component and more randomized assignment to treatment and conrol groups. Other ideas I've had are to use additional modes of data collection with the observation form. The portion of this study that dealt with the traning of complex interpersonal skills requires more than an observation form to assess.

In closing, I have come to realize that a great deal more of the learning from this doctoral study has come from the doing of it than from the study of it. For example, the experiences I had approaching businesses, and one local municipal government, with a proposal to do sexual harassment training were an education in themselves. Additionally, I lived with the literature on behavior modeling for a number of years. I have a very compehensive collection and grasp of the literature on this technique. As a result I developed a set of strongly held beliefs about behavior modeling. Actually working with a behavior modeling type (it should be noted that this training was not a fully developed behavior modeling program) has given me valuable experiences not available from studying the literature. This poject has raised some questions for me about how we learn and levels of learning. It would be interesting to try another workshop design which incorporates behavior modeling and other training modes (for example on supervisor's self-perception) to see if such an effort would result in more powerful learning.

APPENDIX A

Samples of Forms and Instruments

PARTICIPANT'S CONSENT FORM

- 1. I agree to participate in a study entitled, "A Comparative Study Of the Effectiveness Of a Mixed Model vs. a Positive Model In the Supervisory Development Training Technique Behavior Modeling" conducted by John W. Stacey, a doctoral candidate, as part of his research at the University of Massachusetts, Amherst. I understand that the major objective of this study is to determine which of two video models I veiw is the more effective training aid. I understand that my role in this research involves my filling out a brief questionnaire entitled, "Conflict Handling Styles" and my being anonymously video tape recorded while I "role play" a conflict response.
- 2. I understand that data generated from participation will be used initially to prepare a written doctoral dissertation. These same data may be used at a later date in further written articles. I also understand that John W. Stacey is available to answer questions I may have regarding the purposes, procedures, and uses of this research
- 3. I understand and agree with the following conditions regarding the compilation and safeguarding of data collected by this study:
 - a. There is no anticipated risk or discomfort by my participation.
 - b. The questionnaire and video taped role play will be completed anonymously. Only group aggregate data will be compiled and reported. No individual data will be reported. Data will be gathered from the video taped role plays by independently trained raters.
 - c. My participation in this study is voluntary and I may withdraw at any point.
 - d. There will be no monetary compensation for my participation.
- 4. I understand that the results of the research will be made available to me at my request.
- 5. Should any questions about this research develop, I may obtain more information by calling John W. Stacey at (413) 253-7030.

					S	ig	nature		
Number	of	years	of	experience	as	a	supervisor_		
•							Date_		

PARTICIPANT INFORMATION

The following information is needed so that I can better understand and describe the subjects in this study. Please complete this anonymously, fold and place it in the attached envelope, and return it to me before you leave this workshop. Thank you for your time and participation!

Sex of partici	ipant () male	()	female				
Approximate ag	ge () under 20						
	() 20-29						
	() 30-39						
	() 40-49						
	() 50-59						
	() over 60						
Educational Ba	ackground							
() comp	leted high	school or	Graduate E	quivalency Diploma				
() Asso	Associate Degree or two years of college							
() Bach	Bachelor's Degree							
() Mast	Master's Degree							
() Doct	orate							
() Voca	tional Sch	nool or Trai	ining					

DEMOGRAPHIC INFORMATION FROM PARTICIPANTS

# of Participants	# Who Completed Froms				
Controls = 20 Treatments = 40	Controls = 20 Treatments = 31				
60		51			
Approximate Ages					
# of Years under 20 20 - 29 30 - 39 40 - 49 50 - 59 over 60	Control 0 5 7 5 2 1	Treatments 0 3 10 7 8 3			
	35% were 30 - 39 yrs 25% were 40 - 49 yrs				
Educational Background	Control	Treatments			
High School or G.E.D. Associates Degree Bachelor's Degree Master's Degree Doctorate Vocational School	3 4 5 7 1 0	18 3 4 4 0			
	20	28			
Length of Term					
As Supervisor	Control	Treatments			
As Supervisor Range:	Control 1 yr to 18 yrs	1 month to 22 yrs			

SIMPLE TASK RESPONSE FORM

The	omas-F	Kilma	nn ha	ave i	ident	ified :	five	conf	lict har	ndlin	ng st	yles,
please	list	the	five	one	word	names	of	those	styles	(in	any	order).
											-	
											. Mar das. Mas.	

CONTROL SUPERVISOR'S ROLE

You are the supervisor and earlier today you asked one of your employees to send out a mailing to each department on campus before the end of the day. It is now a little after mid-day and you're checking in with this employee because it looks like nothing has been done.

Your role is to get this employee to do the mailing before day's end. You need this job done and you want this employee to do it before he/she goes home.

CONTROL EMPLOYEE'S ROLE

You are the employee and your supervisor asked you early this morning to mail out something to each department on campus by the end of the day today. It's now a little after mid-day and your supervisor is checking in with you to see why you haven't started to do the mailing.

Your role is to try your best to avoid doing the mailing by offering excuses, suggesting that it's someone elses' job not yours, or otherwise diverting your supervisor away from the task at hand.

COMPLEX TASK RATER OBSERVATION FORM

nater:	Role Play #:
BE ASSERTIVE	
States need/want and time frame Steady, clear, even tone of voice Direct visual contact Sitting in an open relaxed position Uses open hand gestures	
STATES POSITION CLEARLY	
Restates need/want and time frame Language to the point, direct Allows/brings in outside topics or issues Check with employee on clarity of request	
DON'T BACK DOWN	
Persists in stating need/want and time frame Acceptsnegative criticism and persist in st Resists emplyee's attempt to divert convers Agrees to give task to someone else Supervisor keeps his/her conversation focus	ating need/want
DON'T APOLOGIZE OR RATIONALIZE	
Supervisor apologizes to employee Supervisor sticks to his/her position Offers higher authority as excuse for creat Verbalizes understanding of employee's posi restates need/want Uses threatening language/gestures	ring need
SUPERVISOR IDENTIFIES HIS/HER RIGHTS	
States that they are "the supervisor," "in	charge, etc.
States that they have the right to ask emp: Challenges employee's right to protest	loyee to do task

APPENDIX B

Scripts of All Video Modeling Displays

The Day Off - Positive Simple

Employee #1 - Excuse me, Louie. Do you have a few minutes? I need to talk to you about requesting time off.

Supervisor - Of course, of course. Please have a seat.

- E The reason I need to request next Friday off would be because my son is having a school fair and he's put a lot of work into the day and I'd like to attend.
- S I see, that's next Friday?
- E Ah hum.
- S Well, let me see here. Yes, next Friday is a fairly busy day, but I think, I think we can fit that in all right
- E Great!
- S Sure, no problem.
- E Good Okay thank you
- S You're welcome. Have a good day now.
- E You too.

Employee #2 - Hi, Louie. I need to talk to you about a day off.

- S Please have a seat.
- E Thank you.
- S When ah, when were you looking for what day were you looking for, Tom?
- E Well, I'm thinking about next Friday.
- S Next Friday?
- E Yeah, next Friday I have some...
- S Oh, next Friday, that's not a good day, Tom. What ah, was this an emergency or...

- E Well, I have some, ah, major projects I have to do around the house and it seems next Friday would be the most opportune time to do them.
- S I see gosh, I'm afraid I'm gonna have to say not to next Friday.

 Just out of the question. I already have one employee out and
 there's a big project sitting right here that's going to have to be
 worked on.
- E Louie, why I've always had a good work record. I never really come and ask you for too many days off.
- S No, I know, Tom and I can always count on you to go that extra mile and this is one I'm afraid I really need you here.
- E So the answer's no right?
- S I'm afraid so.
- E Well, all right then. Thank you.
- S Okay, Tom.
- Expert Thank you for stopping by. I just thought I'd touch base with you. I noticed you had that situation out there. Looked like maybe it was a little bit tricky. I was wondering how you felt about how it went.
- S Ah, you noticed that. Well, I had two employees, both excellent employees, both wanted the same day off as a matter of fact. Ah, I just felt that I couldn't give them both the day off and unfortunately, when you walked by I was saying no to one individual I felt it was the only thing I could do.
- Ex Yeah, Yeah. Those are tough call sometimes, but you seemed to handle it pretty well and are satisfied with the outcome.
- S Thank you. Thank you. I hope it turns out well. I hope it turned out all right
- Ex I just thought, I noticed that it occurred to me that you might not be aware of the fact that there are different ways of approaching conflict situations like that, that can be tricky. Ah, one of the approaches is one that Thomas and Kilmann have designed to model for looking at different alternatives in terms of approaching conflict. I thought you might be interested in knowing a little bit about them.
- S Yes, yes, definitely.

- Ex Good, um, the first approach that they describe is called competing. Competing would be where you really push to get what you want to have happen, happen with not much concern about what the other person wants to have happen. That's competing. second, another approach they describe, is called accommodating. Accommodating would be a situation where you would let the other person have their way and just accept this time their getting their way. Another approach that they use that they describe is called avoiding. Avoiding would be a situation where you don't deal with the conflict at all. You just change the subject or change the focus. Another approach they describe is called collaborating. Collaborating is where the two of you get together and really try to satisfy both of you. An then the last approach that they describe is called compromising. Compromising involves both people giving up part of what they want and getting part of what they want so that they are both willing to accept the result. So, I think it's an interesting way of thinking about and looking at different ways of handling conflict.
- S Well, I certainly appreciate your taking the time to bring those points to my attention and I will keep them in mind for future use.

Ex - Good.

S - Thank you.

Ex - Well, I hope they help you out.

S - thank you very much.

Ex - Good luck.

S - Bye-Bye

The Day Off - Mixed Simple - 7:11

Employee #1 - Excuse me, Louie. Do you have a few minutes? I need to talk to you about requesting time off.

Supervisor - Of course, of course. Please have a seat.

- E The reason I need to request next Friday off would be because my son is having a school fair and he's put a lot of work into the day and I'd like to attend.
- S I see, that's next Friday?
- E Ah hum.
- S Well, let me see here. Yes, next Friday is a fairly busy day, but I think, I think we can fit that in all right
- E Great!
- S Sure, no problem.
- E Good Okay thank you
- S You're welcome. Have a good day now.
- E You too.

Employee #2 - Hi, Louie. I need to talk to you about a day off.

- S Sure, Tom. Have a seat.
- E Thank you. Well, right now I'm looking at taking next Friday off.
- S Next Friday?
- E Next Friday.
- S Oh, let's see here. (pause supervisor thinking and tapping pen on desk) Is this an emergency?
- E Well, I have quite a few projects to do around the house and next Friday would be about the most opportune time that I can take to do them.
- S (Viewer hears supervisor's thoughts) Oh boy, here we go again two employees both want the same day off and I have all this work that needs to be done. Why can't I say no. Looks like I'll have to do it all myself.

- S Well, Tom, you're really putting me in a bad situation here. I've already given Audrey the day off Ah, there's a lot of work coming in, but, ah ah okay go ahead, take the day off. Take the day off.
- E Thank you, Louie. I really appreciate it. Thanks again.
- Supervisor Neil, I really appreciate your taking this time to see me this afternoon. I have a little problem I'd like to discuss with you and hopefully you might have some suggestions that will make life easier for me.

Expert - I'll do my best.

- S I have two employees. They both wanted the day off and unfortunately, me being Mr. Easy, wanting to be a nice guy, I found myself in the situation of giving them both the same day off and what that means is it puts a double load on my lap and I have to take up the slack when their both out and I just wondered if perhaps you could offer any words of wisdom or advice for future use in a situation like this.
- Ex It sounds like you got caught in one of those tricky situations where there's a conflict and you're not really sure how to handle it. One of the things I'm familiar with is a model about how to handle conflict, called the Thomas-Kilmann model and what Thomas and Kilmann did was they came up with five different approaches for handling conflict and it is pretty helpful to me. Maybe it will be helpful if I told you what they were.
- S I'd appreciate that.
- Ex Basically, what they say is you have a lot of choices and a lot of alternatives broken into five different approaches. The first approach that they describe is called competing. Competing would be where you really push to have your own needs met and really try to get what you want to have happen, happen - the result that you want. Another approach that they describe is called accommodating. Accommodating would be a situation where you let the other person have their way and resolve the conflict that way. Another approach that they talk about is called avoiding. Avoiding would be the situation where you don't deal directly with the conflict at all you just change the subject - hope it goes away. Another approach they use is called collaborating. Collaborating would involve getting together with the other person and really trying to come up with a solution that satisfies both of you. Last approach is called compromising. Compromising would involve both of you giving something up and both of you getting some of what you want. A kind of an interesting way of looking at the different

choices and alternatives you have in a conflict situation. I find it helpful and you might find it helpful the next time you find yourself in that kind of tricky situation.

- S Well, I appreciate that information, and I'm certainly going to keep it in mind that next time I run into this problem. Thank you very much.
- Ex You're welcome. I hope it works for you.
- S Thank you.
- Ex You're welcome.

---- Some Time Later ----

Employee #3 - Louie, do you have a minute?

- S Oh, yes. Please have a seat.
- E I'd like to talk to you about taking Monday as a family sick day.

 My husband is having minor surgery and I'd like to be with him.
- S That's this coming Monday?
- E Yes.
- S Let's see here. Well, I think that's a valid request. Monday is a fairly busy day, but I think that we can fit that into the schedule. I hope everything turns out all right
- E Myself also.
- S Fine. I'll put you right in the book here.
- E Okay, thank you very much.
- S Bye Bye now.
- Employee #4 Excuse me, Louie. Can I speak to you for a minute. I need to request some time off.
- S Of course.
- E I'd like to request next Monday off as a floating holiday. I'm having company this weekend and I'd really like to extend my weekend.
- S That's next Monday.

- E Ah hum.
- S Let me check my book here.

 (Viewer hears supervisor's thoughts) Uh oh, this looks like the same predicament I usually get myself into. Maybe this is a good time to put into practice what I learned from Neil.
- S I'm sorry Audrey. Ah, it looks like Monday is a bad day. I'm sorry. I'm afraid I have to deny your request.
- E I don't make too many request and I'd like.... You know I've been a good employee.
- S I know and I can appreciate that. And I've always bent over backwards in the past. Unfortunately, Monday is an extremely busy day. In fact, we're behind schedule on this work order right now and I really need you here.
- E Okay.

The Mailing - Positive Complex

Begins with shot of clock (10:00 a.m.)

Supervisor - Hi, Neil. I've got a project that I'd like to have you work on today and I'd like to have you get it finished before the end of the day if you could.

Employee #1 - Sure, What do you want me to do?

- S Ah, these all have to bent out to the department heads, the state contracts, and you send one to each department head Okay?
- E Okay.
- S "Thank you.

Cut to clock at 1:00 p.m.

- S Neil, how's the state contract coming?
- E Well, Louie, I really haven't any time to work on them. I've been trying to get these magazines together like you asked me to do yesterday. The phone's been ringing off the hook and I haven't really touched these.
- S Ah, Neil, I need to have you send one of these to every department head on campus and I need it before you leave today.
- E Well, why don't you ask somebody else to do it. Get Tom to do it or something. He usually does that kind of stuff anyway. It's really not my job you know. Why don't you get somebody else.
- S (Viewer hears supervisor thinking to himself) Who's the boss here anyway. I have a perfect right to ask him to do this today before he leaves.
- S Ah, look Neil. I don't want to bring anyone else into it. I've asked you to do it and I expect it will be done before you leave today.
- E Okay. I guess so, I guess I'll do it.

Expert - Hi, Louie. How are you doing?

- S Fine, thank you.
- Ex Good, you know I saw Neil and I noticed that he got that job done that you wanted and that he seemed to have met the deadline.

- S Yes, we did with flying colors.
- Ex Boy, that's great. Well, I don't know whether you're aware of it or not. I was sort of listening to what you were telling him earlier, but that you used a Thomas-Kilmann model and a certain segment of that model called the competing mode and what you did was you were very assertive with Neil. You told him exactly what you wanted done, when you wanted it done and how you wanted it done. You weren't aggressive at all and that's just great. Another thing you were very persistent with him and you stuck to what you wanted.
- S Well, this is a very important piece of material and we did want to get that out today before closing.
- Ex Well, that's just great and I also heard that you stated your position very clearly. That you weren't wishy-washy, it was like this is what I want, when I want it and how I want it done. So it was just great and um, one of the things that you did which sometime supervisors find the most difficult to do was that you didn't apologize or rationalize for what your needs were and I really commend you on that.
- S Well, thank you very much.
- Ex You didn't back down, you stuck to your guns and I don't know whether you did this, but maybe before you came in you told yourself you know I'm his supervisor, I'm Neil's supervisor. I have a right to ask him to do this, that you really identified what your rights were.
- S Well, that's very difficult sometimes to be able to do that without being apologetic.
- Ex Right, but you did a great job
- S Well, thank you.
- Ex Keep up the good work.
- S I certainly shall. I appreciate your stopping by to let me know.
- Ex Sure, have a good day.
- S Thank you. Bye-Bye, now.
- Ex Bye

The Mailing - Mixed Complex

Begins with clock at 10:00 a.m.

Supervisor - Hi, Neil. I've got a project I'd like to have you work on today and I'd like to have you get it finished before the end of the day if you could.

Employee - Sure, what do you want me to do?

S - Ah, these all have to be sent out to department heads, state contracts and ah, just send one out to each department head.

E - Okay.

S - Okay. Thank you.

Shot of clock at 1:00 p.m.

- S Ah, Neil, how's it going with the state contracts?
- E Well, Louie, you know I got a lot of things to do. I'm trying to get the magazines.... ah, you know, why don't you get Tom to do it. He should be the one doing it anyway.
- S (<u>He says to himself viewer hears</u>) Oh boy, what a predicament. How do I get myself out of this one.
- S Well, I know but will you try and fit it into your schedule. It's kind of important.

E - Ah hum.

Shot of clock at 4:30 p.m.

E - Hi, Andy. Have a good night.

Ex - Good night, Neil.

Supervisor overhears Neil saying goodnight and looks at his watch. Viewer hears supervisor saying to himself: Phew, looks like I've done it to myself again. Boy, I'm gonna be burning the midnight oil tonight.

Ex - Hi. How are you today?

S - Oh, it's been one of those days, I'm afraid.

Ex - I just saw Neil leave and I knew you had a project for him.

- S You noticed him leaving. Yes, yes. This is the project I had for him. I spoke with him earlier today and thought I had made myself clear that I absolutely had to have these done by closing today. I had explained they should all be sent out to the department heads and I don't know what happened, but I just saw him going out the door. Looks like I'm stuck with it right now.
- Ex Yeah, that's a really frustrating position to be in.
- S Boy, it certainly is.
- Ex Well, I have an idea if you'd like to try it next time so you might not get yourself in this predicament again.
- S Oh, whatever suggestion you could make....
- Ex Well, it comes from a Thomas-Kilmann model and it's a segment of his model and as you're talking about the situation that you're in, it sounds like it comes under what's called the competing mode and there's a certain amount of steps that you take. I'll go over those steps and you can sort of go over what happens in your mind to see if there's something you might have done differently. You might of had a different outcome.
- S Sure, sure.
- Ex The first thing you want to do is be assertive and not be aggressive and not to get Neil on a defense but to make sure your needs are heard. Like, Neil, I need you to do this this way by this among of time. Okay?
- S I see.
- Ex The next thing you want to do is to be persistent and to make sure that he hears it. Okay?
- S Ah, hum.
- Ex The third thing is you want to state your position clearly. It's real important that he understands exactly what he is to do, how he is to do it and when it's supposed to be done by and that there's just no alternative. One of the other steps, and probably one of the most difficult ones, is that you don't want to apologize or rationalize why you want him to do what you want him to do. Okay? You also don't want to back down. You really want to stick to what you want and it's important that before you go in, you identify your rights. That you say to yourself, I am Neil's supervisor, he's my employee, and I have a right to ask him to do this and if push comes to shove, that you vocalize that to Neil. Just say, Neil, I am your supervisor and I'm asking you to do this and this is what I want done and when I want it done.

- S I see. Well...
- Ex How does that sound to you?
- S Gee, that sounds great You know, in looking back at the events of the day, I can see where perhaps I probably made a few mistakes wanting to be Mr. Easy, Mr. Nice Guy and now I end up with it myself. I really appreciate your stopping by.
- Ex Oh, sure. Let me know how it goes.
- S I will, I will. And thanks again. I appreciate it.
- Ex I hope you get it done quickly.
- S Well, sometime this evening I'm sure.
- Ex Well, have a good night, Louie.
- S Thank you. Bye, now.
- Ex Bye, bye.

----Some Time Later----

- S Neil, how's the state contract coming?
- E Well, Louie, I really haven't had any time to work on it. I've been trying to get these magazines together like you asked me to do yesterday and the phone's been ringing off the hook. I haven't really touched these.
- S Ah, Neil, I need to have you send one of these to every department head on campus and I need it before you leave today.
- E Well, why don't you ask somebody else to do it. Get Tom to do it or something. He usually does that kind of stuff anyway. It's really not my job, you know. Why don't you get somebody else.
- S (Thinking to himself viewer hears) This is the same darn problem I've had with Neil in the past. This time I'm not going to back down.
- S Look, Neil, I don't want to bring anyone else into it. Ah, I've asked you to do it and I expect it will be done before you leave today.
- E Okay. I guess so, I guess I'll do it.

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