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ABSTRACT

The University of Massachusetts School of Education has developed a curriculum in human relations--Human Interaction--written from a behavioral frame of reference, whose primary objective is the development of teachers who can act freely and spontaneously with intentionality. Building from materials in sensitivity training, traditional human relations programs, and behavioral psychology, the program provides a systematic, graduated set of human relations exercises which facilitate personal growth while avoiding invasion of personal privacy. Behavioral objectives have been established and tested in five hierarchical modules. Trainees first demonstrate their ability to engage in the specific behavior, then practice it or use it in their daily life, and finally teach some aspect of the module they have just learned in the university laboratory school. The model provides teachers with an important bridge between personal experience and public practice. A variety of programmed texts, audiotape and videotape instructional programs, and individual and group procedures are utilized to impart the concepts of this program. Teachers who have achieved all the behavioral objectives of the program are ready to serve as peer teachers and work as course assistants during ensuing terms. Evaluation of the program in workshops presented in other parts of the country suggests the feasibility of such a program in teacher education. (Author/MBM)

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HUMAN INTERACTION:
A BEHAVIORAL OBJECTIVES CURRICULUM IN HUMAN RELATIONS

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SUMMARY OF PROGRAM

Can a behavioral objectives curriculum in human relations permit and encourage a teacher to become more free and open in his relations to students and to others around him? Behavioral objectives are often associated with the control of behavior; relatively little consideration has been given to using these same concepts to expand the alternatives available to the teacher, thus freeing the individual for more creative growth.

The University of Massachusetts, School of Education, has developed a curriculum in human relations, Human Interaction (HI), written from a behavioral frame of reference, whose primary objective is the development of teachers who can act freely and spontaneously--with intentionality. Building from materials in sensitivity training, traditional human relations programs, and behavioral psychology, HI provides a systematic, graduated set of human relations exercises which facilitate personal growth while avoiding invasion of personal privacy.

Behavioral objectives in human relations have been established and tested in five hierarchical modules. Teacher trainees participate in each learning module through HI's "Do-Use-Teach" program. Trainees first demonstrate their ability to engage in or "do" the specific behavior of the module. They then practice this behavior or use it in their daily life. Finally, the trainee teaches some aspect of the human relations module they have just learned in the University Laboratory School.

Most human relations training programs are isolated from the remainder of the teacher education curriculum and teachers who experience such training have difficulty in generalizing their learning to their own classrooms. The "Do-Use-Teach" model provides teachers with an impor-

tant bridge between personal experience and public practice. A variety of programmed texts, audiotape and videotape instructional programs, and individual and groups procedures are utilized to impart the concepts of this program.

Trainees who have participated in HI and who have achieved all behavioral objectives are ready to serve as peer teachers and work as course assistants during ensuing terms. Evaluation of the ongoing program in HI plus workshops presented in other parts of the country combine to suggest the feasibility of such a program in human relations programming in teacher education.

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INTRODUCTION

The Massachusetts' Model Elementary Teacher Education Program (METEP) was one of nine projects funded by the United States Office of Education, Bureau of Research in 1968 to develop specifications for a comprehensive preservice-inservice elementary teacher education program. Although the original model was completed by November 1, 1968, its development has continued through the present time. The following are the major assumptions and goals of METEP:

- a. The role of the elementary school teacher is changing and will continue to change in the future. We must prepare teachers for change and not stability. The concepts of performance criteria, multiple instructional routes, differentiated staffing patterns, and continual inservice training programs appear to offer a meaningful approach to education in the future.
- b. Specific performance criteria, based on an analysis of knowledge, skills, and attitudes in the human relations, behavioral, and content areas should be identified to provide a flexible basis for change. When the trainee meets the specified criteria requirements he will have completed the preservice aspect of the program, regardless of the length of time enrolled. Thus, variable entry and exit points in the programs will occur.

- c. Elementary school staffs will begin to differentiate their roles as teachers, thus requiring personnel with different competencies in new and different areas of specialization. Special consideration of differential staffing seems essential in the schools of the future.
- d. Since there is no real evidence of the efficacy of any one major strategy of teacher training, the program includes as many widely differing overall strategies as possible in order to provide for examination of training consequences, for insights into relative training efficiencies, and for discovering relative acceptance and appreciation of the processes by trainees.
- e. On the assumption that each trainee's strengths and weaknesses will differ and that individual learning styles do exist, the program provides no fewer than two alternative and equal instructional paths to the same objective.

At the present time, aspects of METEP are operational as part of the regular teacher education program; the two most advanced being the language arts and human relations components. Because of its uniqueness, the human relations components of METEP was selected as the University of Massachusetts' entry for the Distinguished Achievement Awards Program.

HUMAN INTERACTION: A BEHAVIORAL OBJECTIVES
CURRICULUM IN HUMAN RELATIONS

Human Interaction (HI) was developed under the aegis of the Model Elementary Teacher Education Program (METEP) at the School of Education, University of Massachusetts, Amherst. This project, funded by the U.S. Office of Education, had as its central goal the development and implementation of a new program utilizing behavioral objectives and systems concepts for the training of elementary school teachers.

The primary thrust of METEP is seen as the development of elementary school teachers who can demonstrate competency in three major areas: human relations, behavioral, and content. The human relations area is entered in the Distinguished Achievement Awards Program from the University of Massachusetts because of the uniqueness of its content and approach, and also because it is among the most developed and operational of the METEP components.

The addition of human relations education to the training of teachers represents a new departure; while the importance of the teacher's mental health and well being has always been stressed, relatively little of a systematic nature has been done to facilitate teacher trainee personal growth. In addition, the concept of teaching human relations concepts in the classroom as part of the formal curriculum has only recently been given serious consideration.

Behaviorism is most often associated with control of human beings; even the jargon of behavioral psychology (e.g. reinforce, shape, contingency management) may give one a pessimistic, mechanistic view of man. As an early step toward identifying specific behavioral objectives, the human relations group spend a good deal of time discussing and establishing a goal for the program which focused on freedom and a positive view

of man. The concept of intentionality was borrowed from existential psychology, given an operational definition, and is presented as the central goal of the human relations program.

INTENTIONALITY: AN ACTION ORIENTATION

The primary objective of HI is the development of teachers who can act freely and spontaneously--with intentionality. The person who acts with intentionality possesses the ability to act on his environment. He is one who can generate alternative behaviors in a given situation and "come at" the problem from different vantage points as he receives environmental feedback. The intentional individual is not bound to one course of action, but can act "in the moment" to respond to ever-changing life situations.

To act with intentionality, one must have alternative behaviors available to him. The person who cannot "cope" with an awkward situation, the teacher who doesn't know what to do next with his class both suffer from a deficit of alternative behaviors which might be appropriate to a unique situation. As such, HI has, as a secondary objective, the direct instruction of teacher trainees in specific behaviors of human relations. A variety of learning techniques are used in human relations hierarchical modules based on behavioral objectives. Each hierarchy or module focuses on a single human relations skill area (e.g. relaxation, attending behavior, decision making) in a "Do-Use-Teach" model.

Intentionality is best described behaviorally through the passive or active behavior of teachers. The following example illustrates what happens when a teacher acts with intentionality:

Susie had a beautiful lesson in human relations. She wanted to share with her fifth grade students some of her ideas about listening to others. She sat on the floor and asked the children to play gossip... to pass a message around the circle by whispering.

After the circle had gone around a few times, Susie asked the children to discuss what had happened. The children engaged in an excellent discussion of how one learns from listening to others. The children continued the discussion on their own and Susie became a participant with them as they explored the topic.

As the children became more involved, Susie dropped out of the discussion and became an interested listener. She was particularly pleased when Craig, usually a negative discipline problem, pointed out that "listening is not necessarily hearing."

Susie, in this brief example, illustrates several alternative behaviors. She did not hesitate to decide what she wanted the students to learn and provided a framework for this learning process. She was physically relaxed and demonstrated the concepts of attending behavior. As the children started discussing, she immediately moved from teacher to co-participant in the game. As the children increasingly showed growth, she moved back allowing them to carry the discussion. After this topic was completed, she was prepared to offer the students another suggestion for learning, if another suggestion seemed appropriate at the moment. Important in this discussion is that Susie planned only some of her specific behaviors; she did what "felt right" to her at the moment and that included some planning ahead as well as some spontaneous activity. Much of the unplanned activity could also be described as learned behavior. Not only did she affect children, but they affected her. Susie's experience from this lesson was one of accomplishment and joy.

Jane, on the other hand, illustrates what happens when a teacher fails to act with intentionality:

Jane, too, had a good lesson plan in which she hoped to teach her sixth graders decision making skills. She presented the children with a situation in which they were to imagine that someone bigger than they wanted to take their bike away from them. She wanted her students to generate as many alternative courses of action as possible in a brainstorming session.

Bill came out with a statement stealing Jane's thunder by listing six alternatives in his first statement. Jane grimaced as Bill had a way of answering questions so completely that he tended to shut others out. The other children sat during the brief hiatus. Jane said, somewhat weakly, "That's fine, now what other ideas can you think of." No one else thought of any other ideas. Jane started talking and showing the children some other alternatives... they weren't listening. The lesson ended when Jane had to reprimand Tom for hitting Bill.



The teacher who has only one way to handle a classroom situation cannot act with intentionality. In the picture above, the teacher is meeting the needs of some pupils, but does not have the flexibility to meet all their needs.

Talking with Jane afterwards revealed that she had felt beaten, almost depressed, when Bill answered her question so completely. Her attention left the children and she had thought about what could she do next. She recalled talking and giving some additional suggestions to the children as to alternatives, but she said inside she was bored with what she was saying and angry at Bill for causing her to lose control of the class. In this situation Jane acted with intentionality when she thought of a good lesson plan. However, when it did not go as she anticipated, she lost intentionality and became encumbered by the situation. In this setting she neither affected nor was affected by her students.

One possible example of intentional teaching would have been for Jane to shift her entire lesson to a new framework. She could have had the children role play the various approaches suggested by Bill and have the children evaluate the alternatives. In all likelihood, the children would start generating additional alternatives. With this approach, the teacher would maintain her sense of intentionality and Bill and his classmates would have their own opportunity to experience intentionality. It should be mentioned, however, that when Jane saw her lesson wasn't going well, she forced herself out of her bad feelings toward herself and acted by having the students move to a new area of exploration which went well. In moving out successfully from a difficult situation, Jane exhibited one of the highest forms of intentionality.

We do not believe that intentional teaching can be defined except by the actions of the teacher. The effective teacher who acts with intentionality is constantly mixing thinking and feeling approaches with children in new and unusual ways to maintain her and the children's interest and involvement. Bringing new approaches to the teaching situation, however, depends on having an adequate behavioral repertoire.

Skinner (1968) points out that instructional techniques have not been used effectively for human growth. Skinner also speaks of using operant methods to control individuals' behavior for their own and others' benefit. The behavioral model is useful in human relations training as it helps specify more precisely the dimensions of human interaction. However, the jargon of operant psychology (condition, reinforce, manipulate, control) is not compatible with the world views of many educators.

May (1969), one of the leading existential psychologists has pointed out that for an individual to act with intentionality, he must assume the behaviorist posture. "That one is free to act when he is allied to a determinism is one of the paradoxes of our problem." The concept of intentionality as developed by May would seem to imply to achieve enlightenment or self-control requires a disciplined commitment to action. Both existential and behavioral positions demand that one act.

TEACHING HUMAN RELATIONS

The basic model of the curriculum is a "Do-Use-Teach" approach in which a relatively specific area of human relations behavior is identified and the trainees very soon teach these skills to others. The skills are organized in a hierarchical fashion in which the student teacher does not proceed to advanced levels until he has demonstrated his ability to perform at the present level. "Do-Use-Teach" hierarchical modules have been developed in final or preliminary form in over 30 areas. They range from self-control of physiological responses to listening skills and from empathy to organizational change.

Perhaps the best way to describe the performance curriculum is to outline in detail one of the hierarchies and our personal experience as we shared our ideas with our students and simultaneously learned from them. Figure 1 contains the complete text of the performance hierarchy on attending behavior.

Attending behavior (listening) is a set of constructs developed for use in counselor training in a video feedback technique termed "microcounseling" (Ivey, Normington, Miller, Hasse, 1968) modeled after microteaching (Allen 1967). The behavioral constructs of listening (eye contact, physical attentiveness, and verbal following) have proven useful not only to counselors, but also to individuals in general. The microcounseling model has proven an enjoyable and efficient method through which individuals can learn to communicate to one another more effectively.

However, the teacher trainee is first requested to "tune into himself" via some form of relaxation exercise before he encounters the concepts of attending behavior. Underlying all performance hierarchies is the belief that teachers should have the ability to be in touch with themselves. Teachers can listen more effectively, teach with less effort, make more



This individual is working on relaxation skills. The tense and nervous posture results in an individual who does not communicate himself and his ideas well. Practice with relaxation training will help this individual learn to use his body more effectively and feel more relaxed in teaching situations.

FIGURE I
HIERARCHY III
(Attending Behavior)

Performance Criterion	Instruction Alternatives
1. Relax systematically to the satisfaction of yourself and the facilitator.	<ul style="list-style-type: none"> a. Use Davison's (1967) tapes to relax. b. Read and practice relaxation via Guither (1967) on Jacobson (1938).
2. Demonstrate eye contact, relaxation, attentive postures, and verbal following with fellow trainees and others.	<ul style="list-style-type: none"> a. Practice these behaviors in a microcounseling situation. b. Participate in a group exploring alternative routes to attending behavior.
3. Observe groups of children in a classroom. Write a description of children's attending behavior in a classroom setting.	<ul style="list-style-type: none"> a. View a videotape on attending behavior in the classroom. b. Observe children in a classroom after participating in a group session on observational procedures.
4. Establish a program for teaching attending behavior.	<ul style="list-style-type: none"> a. Practice attending behavior skills with the facilitator. b. Prepare a self-evaluation in relation to your own attending behavior skills.
5. Teach one person attending behavior.	<ul style="list-style-type: none"> a. Develop a scale for rating the others attending behavior. b. Participate in a group evaluating your teaching approach.
6. Teach in a microteaching setting, some aspect of attending behavior.	<ul style="list-style-type: none"> a. Simulated microcounseling training. b. Individual planning with facilitator.
7. Discuss the issues that relate to attending behavior. Provide a critique hierarchy in writing with suggestions for improvement or modification.	<ul style="list-style-type: none"> a. No instructional alternative planned.



This photograph depicts training in attending behavior using the microcounseling model. During the first five minute session, note the poor eye contact and inattentive posture of the listener in the middle.



After training in attending behavior, note the eye contact and postural changes in the trainee. The trainee will next practice attending behavior with his family or friends and will later teach this skill to the students.

reasonable decisions from a relaxed, more creative and less encumbered frame of mind. Relaxation training has proven to be the most popular series of exercises with trainees. Several alternative instructional routes to learn relaxation are provided via audiotapes (Davison, 1967), group sessions, and/or reading material (Jacobson, 1938; Gunther, 1967).

Step two of the hierarchy begins with a definition of attending behavior as outlined above. Trainees participate in a microcounseling session in which they have an opportunity to develop and demonstrate the skill of listening. While the basic microteaching model is most often used, variations of discussion and video feedback techniques are sometimes used to provide increased spontaneity and allow for individual differences among trainees. At this step, a group session often provides a basis where teacher trainees can consider the implications of attending behavior for their own life and for the classroom.

Step three requires student participants to observe children's attending behavior in classroom sessions. Alternative instructional routes included a videotaped lecture and written instructional materials.

Steps four through seven demand increased involvement and creativity as they require the trainee to teach the skill to others. At this point the trainee teaches one other person the newly learned skill and returns to demonstrate his ability to the facilitator. It might be anticipated that student teachers would be merely copying their facilitators and simply use the same technique and methods they have just learned. Students are encouraged to discover the method or methods they liked best and use only those methods which appeal to them personally. When the trainees report back on their success in teaching attending behavior to someone else, the facilitators reward those efforts which are unique and those which most clearly "belong" to the trainee.

Evaluation of performance at each level centers on a negotiation between the trainee and facilitator. The trainee is encouraged to define his own level and style of performance. However, this does not mean abdication of responsibility on the part of the facilitator. Evaluation on his part centers on: 1) does the trainee understand the concepts of attending behavior and can he communicate them in verbal or written form? 2) has the trainee improved his ability at this level on the hierarchy? and 3) can the trainee communicate his own unique personal insights concerning the skill to the facilitator? A broader measurement at the end of the hierarchy is used: Can the trainee generate a number of quality and usable alternatives for teaching attending behavior and demonstrate his ability to use them in a teaching situation?

The success of the method is determined most completely at step six of the hierarchy. Susie's lesson described earlier was one of the trainee sessions designed to teach attending behavior. Another trainee used the microcounseling framework itself with the children with surprising success, one developed a game using art materials which required the students to listen to one another before proceeding with their picture, and one turned off the lights and had the students tell Halloween stories. Still another deliberately planned no specific lesson to determine if she could respond in the moment...the session which evolved consisted of her telling something about herself and having the elementary students ask questions for more elaboration. Then, in turn, all the students had the opportunity to share something with the group and then have questions asked of them. Some of the teacher trainees had an excellent discussion of listening concepts with the children, others preferred to operate purely at an experiential level with no planned cognitive input.



The students are learning the importance of attending behavior, especially eye contact and posture. They are playing the game of Charades. In the game portrayed, students try to guess what is being acted out by using nonverbal cues. In this way, the importance of nonverbal attentional cues are learned by individuals.

The hierarchies have been so organized that the teacher trainee once having completed the program is capable of leading a new trainee through the hierarchy under supervision. Presently, able students from the human relations program are recruited as peer teachers for the program. In this type of program, the professor becomes a facilitator and consultant to those actually running the program.

Eventually, the performance curriculum will be designed so that all trainees can start at his present ability to perform and not have to go through the entire curriculum. If a student can demonstrate all the skills of a hierarchy, he can move on to other areas of training. This is a performance curriculum and is not time-bound.

In summary, it may be seen that the prime commitment to action within the performance curriculum is a constant effort to permit and encourage the teacher trainee to strike off in his own direction and operate independently from the trainer. If the teacher is to act with intentionality, this very movement must be spontaneous and genuine. In effect, the trainee must produce his own "self-growth."

HUMAN INTERACTION IN ACTION

HI is currently rapidly expanding both the number of skill areas and the number of individuals served. Under the general supervision of one professor, six sections in Education 220/520 of twelve student teacher trainees each meet twice weekly. Only one of the sections is taught by the professor; the remaining sections are taught by advanced graduate students who themselves during the past year were participants in the course. The graduate assistants are assisted by talented undergraduates who participated in the course during the preceeding term or year. It is anticipated that eventually undergraduate section leaders will be added to the program.

The specificity of the behavioral objectives curriculum in human relations has facilitated the extensive use of graduate and undergraduate personnel to teach the course. This "multiplier effect" seems important as it is not possible to staff new programs such as this in sufficient numbers. It is anticipated that it will be possible to offer this course to all students in teacher education at the University within two years with a maximum of one full-time professional position and three half-time graduate assistants. This group will in turn supervise the section meetings of HI.

The Danforth Foundation recently funded a three day workshop for HI staff. During this weekend a new model for participatory supervision of each section was evolved. Now weekly meetings of all section leaders and their assistants are held; these meetings include a combination of sensitivity exercises plus discussion of course issues. They provide an important avenue for communication between leaders, development of new



Media is important in Human Interaction programs. Here we see a group of teacher trainees learning skills of self-expression. They have just participated in a group exercise in which they tried to express a single idea clearly. The supervisor in this case is showing how effective self-expression in the classroom is related to effective self-expression in daily life.

materials, and opportunity for personal growth for all participants.

A special effort has been made in the development of the behavioral objectives curriculum to provide alternative curricular materials for leaders. Two manuals for group leaders have been written thus far and may be viewed in the appendix. The first, a systematic hierarchy requires each individual to complete the curriculum on a step by step basis and is perhaps the most behaviorally oriented. A more recent edition of the manual has focused more heavily on the "Do-Use-Teach" model and provides a broader range of instructional alternatives. Currently, the curriculum is again being rewritten. In the third edition, language of a more phenomenological style will be used. This is in the belief that behavioral terminology, while precise and useful, is objectionable to some individuals. It is believed that it will be possible to combine the precision of learning theory with the warmth of phenomenology in a new "behavioral humanism."

The ultimate plan calls for from three to four curricular guides all aimed toward the same objective. This is in the belief that there is more than one route to final objectives and in the hope that maximum value for the curriculum will be found in more than one framework.

APPLICATIONS OF THE CURRICULUM IN OTHER SETTINGS

Although this discussion centers on the application of the behavioral objectives curriculum as used in teacher education, it seems appropriate to list briefly some of the extensions that have been made with the curriculum in other settings.

1. Elementary Students. Presently, four teachers from the Marks Meadow Laboratory School are participating in the human relations course. They supervise undergraduate students who come to the Laboratory School every two weeks to teach human relations lessons to the children. Out of this program should evolve a new framework for interaction between teacher training and applied practice.

In this program the Laboratory School teachers are able to suggest changes and improvements in the behavioral objectives course in human relations, the professor is then able to implement them, and the teachers themselves can see immediately the effect of their suggestions in the classroom through the performance of undergraduates teaching human relations concepts.

Finally, efforts are now underway to conceptualize an elementary student program in human relations education, one which will be used on student needs, but with clear and specifiable behavioral outcomes. If human relations education is important to teachers, it is also important to children.

2. Large City School System. Dade County, Florida and the Miami Schools have conducted two workshops in human relations education. In these sessions, teachers and counselors have learned the skills of the human relations performance curriculum. Through the "Do-Use-Teacher" model, they have been able to implement a variety of new human relations training programs in Miami Schools. At present, pupil personnel services

in Miami is considering reorganizing the role of the guidance worker to center of humanistic or psychological education in the model of human relations training suggested in this paper.

Several innovative programs have been developed in Dade County which have extended the original conceptions of the curriculum. One of the more impressive of these has been the training of high school students as human relations teaching assistants. These students then work in English courses and assist the teacher in introducing human relations concepts into the regular class. Several special projects in human relations for the disadvantaged child have also been developed.

3. The State of Florida. Through one of the workshops discussed above, teachers and administrators in other Florida schools have been able to apply the behavioral objectives concepts to their own settings. Typically participants have gone back to their home settings and instituted workshops much like the one they just completed. A special feature of the "Do-Use-Teach" model is that most people have gone through the steps are then able to teach other individuals the same material almost immediately. The potential for an important multiplier effect is readily apparent.

4. Teacher Corps Training. Presently two recent graduate of the Education 220/520 course are teaching a group of 12 Teacher Corps Trainees basic concepts of the human relations curriculum. These trainees are then expected to use the curriculum in their own teaching situation and to teach what they learn to other individuals.

5. In Junior Colleges. An inner city junior college in New York is experimenting with the curriculum as a new way to reach disadvantaged college students. Consideration is presently being given to teaching junior college students human relations skills and then having them teach

these same skills to high school and junior high school students in the city.

6. Drug Education Center. Working with college age drug users requires considerable human relations and counseling skills. Aspects of the performance curriculum centering on listening skills and utilizing the microcounseling framework are a major part of the training program at the University of Massachusetts Drug Education Center.

7. Other Activities. The Jewish Community Center in Springfield, Massachusetts has applied behavioral objectives concepts in teen-age leadership training sessions. They have also utilized attending behavior constructs to teach individuals working on a "hot-line" telephone service designed to help teen-agers in emotional trouble. They are also beginning a program in marital communication based on the concepts of behavioral objectives in human relations.

The author of this paper is presently extending human relations training to mental patients at the Veterans Administration Hospital in Northampton, Massachusetts. Early evidence reveals that the concepts of behavioral objectives in human relations training is at least as successful with this population. Dramatic improvement in attitude and behavior are revealed when a patient experiences training in relaxation, listening, or any of a variety of other skills offered by the program.

SUMMARY

Needless to say, these activities represent only a beginning. The potential of specifiable behavioral objectives in producing behavior change and positive personal growth seems almost unlimited. The major question seems to be not if the method is workable, but how rapidly one can implement such powerful methods of human behavior change in our society today.

Clearly, there is need for more effective communication and human relations in our society. It is believed that this program is one avenue toward more effective individuals who can do much to work on the problems we all face today.

BUDGET

The following budget reflects the initial cost for establishing the HI program, the personnel needed to maintain the program and the general space needs. These costs are seen in relation to a program that would support sixty undergraduates.

I. Initial Cost

a. Two V.T.R. portable units @ \$1500.00	\$ 3,000.00
b. Five Audio Cassette Recorders @ \$50.00	250.00
c. Fifty Audio Cassettes @ \$2.00	100.00
d. Fifty "Twenty-Minute" 1/2" Video Tapes @ \$5.00	250.00
e. Books and Printed Materials for References	<u>100.00</u>
TOTAL	\$ 3,700.00

II. Staff

- a. One full time faculty member to supervise the program.
- b. Five Teaching Assistants to serve as the trainers for five groups of twelve students each.

III. Space

The Space needed for this program is modest. Any small classroom can be used to maintain this program.

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APPENDIX

Procedures and Methods

In this chapter, the procedures and methods used to test and evaluate the performance curriculum in human relations will be reviewed. Included within this discussion will be the selection of subjects, research design, method of instruction, instrumentation and evaluation.

Subjects

Subjects were drawn from a population (120 students) of elementary school teacher trainees who were enrolled in the elementary education block in the School of Education, University of Massachusetts, Amherst, Massachusetts. All the subjects were women who had elected elementary education as their career choice. The author and Dr. Allen E. Ivey appeared before the group to ask for volunteers to participate in a METEP Human relations Program instead of the usual courses taken during this period of time on the block. Out of the one hundred and twenty students in the population, fifty-four students volunteered to participate in the human relations program.

The participants were selected by a secretary at the School of Education. Her instructions were "to randomly pick twenty-four names from the list of fifty-four volunteers and to divide the group into two groups of twelve each". A letter was sent to the twenty-four subjects, asking them to come to an orientation meeting. At the meeting they were told that only twelve would receive the training immediately, due to limited facilities, and that the other twelve would receive the

training at a later date. They were further told that all would be tested at this point so that we could get more information about them in relation to the course. Initially, twelve subjects were assigned to each group. After the first week of the program, one subject left the experimental group and one left the control group.

The Training Procedure

The individuals in the experimental group were taught in a single group. The instructional period was four weeks with each hierarchy taking one week (see Figure three for a view of a typical week). Instruction in all of the hierarchies followed the same general instructional model. This model was to introduce the skill being taught so that the trainees could begin to understand the reason that the skill was selected and discuss questions that the trainees might have about the skill. The second step provided some experimental input for the trainees. An example of this would be the experiencing of the relaxation procedure of Davison (1967). As part of every step, including this step, time was set aside for the trainees to discuss or question the step they just went through. The third step was to discuss possible applications of the skill to their own life and then to go out and try the skill out. The fourth step was to try to develop an informal program to teach one another the skill they had just learned. These first four steps all were in the large group. The sixth step in each hierarchy was the micro-teaching step. In this step the students taught the skill to five elementary school pupils. This process is reflected in Figure III.

Monday	Tuesday	Wednesday	Thursday	Friday
Pre-Test	Introduce skill to large group	Discuss results of the use of the skill and teaching applications in large group	Microteach	Post-Test
Lunch				
Pre-Test	Teach skills to one other and use it in small group	Plan micro-teaching lesson to be used with elementary school pupils in small group	Microteach	Post-Test

Figure III

Diagram of a Typical Week's Experience in the Performance Curriculum

For the sixth step those individuals in the experimental group were divided into micro-teaching teams of three each and were assigned a supervisor from among a group of doctoral student volunteers and a faculty member of the School of Education, University of Massachusetts, Amherst, Massachusetts. It was conceived that the role of these supervisors would be to monitor the subjects skill acquisition and

more importantly to aid the subjects in their preparation of micro-teaching lessons. Each trainee was then further assigned a group of four elementary school students who were to be taught the individual human relations skills from the micro-teaching framework. Those students in the control group received no training and were seen only at testing times.

Research Design

The research design that was utilized in this study was an adaptation of Campbell and Stanley's (1963) experimental design number four. Basically, the design may be seen as a random assignment to a treatment and control group with testing occurring both before and after treatment.

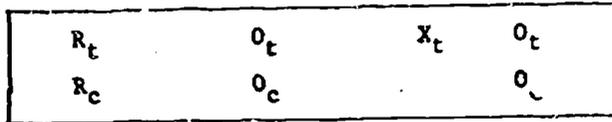


Figure IV

Experimental Design Number Four

The adapted design includes the addition of four more experimental units. Adaptation of this design was made due to the modular nature of the performance curriculum. Each hierarchy had as its goal the establishment of a specific behavioral outcome. In order to effectively measure these individual outcomes it was imperative to establish evaluation periods immediately before and after the individual treatments set forth in each hierarchy. This adaptation further permitted the experimenter the opportunity to observe the progress of the trainees as they proceeded through each hierarchy. The

adaptation does not markedly alter the characteristics of the original design but instead adds four similar designs to the original design represented in Figure IV. The design now resembles this model:

R_t	O_{tm}	O_{t1}	X_{t1}	O_{t1}	O_{t2}	X_{t2}	O_{t2}	O_{t3}	X_{t3}	O_{t3}	O_{t4}	X_{t4}	O_{t4}	O_{tm}
R_c	O_{cm}	O_{c1}	X_{c1}	O_{c1}	O_{c2}	X_{c2}	O_{c2}	O_{c3}	X_{c3}	O_{c3}	O_{c4}	X_{c4}	O_{c4}	O_{cm}
		MSGO Hierarchy I			Hierarchy II			Hierarchy III			Hierarchy IV			MSGO

Figure V

Adapted Experimental Design Number Four

This design generally controlled for most of the major sources of external and internal invalidity and did permit the researcher to see a clear picture of the progress of his program within the limits of the sample.

Instrumentation

Two instruments were selected for each hierarchy or skill area. One of the two instruments was selected to measure attitudinal changes in the subject in relation to his experiences as he went through the hierarchy. The other instrument that was selected for each hierarchy was selected to measure whether or not there was a significant change in skill level as a result of the training. An overall instrument was selected to measure any attitudinal changes that might have occurred due to the mere experience of growing through the experimental program.

Miskimin's Self-Goal-Other Discrepancy Scale (MSGO)

The MSGO is an instrument developed to measure discrepancies, the distance between an individual's: 1) self concept; 2) his goal-self concept and 3) his perception of how others view him. There are four

specific areas within the MSGO that an individual uses to rate himself.

The categories follow:

General: (Intelligence, creativity, physical attractiveness, success in life, and competence).

Social: (Friendliness, social ability, good heterosexual relations, social skills and concern for others).

Emotional: (Self confident, relaxed, content, able to handle personal problems).

Personal: (In this section the individual selects and rates himself in relation to his own sub-categories).

The test items throughout the instrument are arranged in a nine point semantic differential scale. There are a total of twenty items with five items in each of the previously listed categories. For the purpose of this study the total discrepancy score from pre-test to post-test was used, to detect any gross changes, rather than an examination of the discrepancies in each individual category. In testing the reliability of the MSGO with twenty-two individuals, the retest reliability was computed as .85.

The Semantic Differential (S.D.)

This instrument attempts to measure an individual's attitude towards a specific concept. This instrument was utilized as a self-rating system in which the subjects rate themselves in relation to a set of antonyms. For the purposes of this study, the total score will only be considered.

The S.D. used in this study was developed by the experimenter. Initially, an S.D. of seventy-five items was developed. The antonyms

were taken from Roget's Thesaurus and of those that were selected, a total of seventy-five were tested to see if they did discriminate. The S.D. was then administered to a group of fifty subjects. The results of this administration were then item-analyzed, by the use of chi square, and thirty-nine items were discarded. The remaining thirty-six items were then used as the S.D. used in this study. The retest reliability of these thirty-six items was computed at .83.

Delayed Auditory Feedback (D.A.F.)

The D.A.F. was used to measure changes in levels of anxiety. The subject reads a two paragraph statement into a tape recorder; he then hears himself two-tenths of a second later. It has been demonstrated by Rudman (1969) that low anxious people will make fewer mistakes in the reading of the two paragraphs than high anxious people. Rudman (1969) also determined that after relaxation training the high anxious subject's score would improve significantly. Rudman in this same 1969 study computed a retest reliability coefficient equal to .91 with an $N=44$. Evaluation was based simply upon the computation of errors made by the subjects while reading a selected piece in both the pre-test and in the post-test. The interrater reliability computed was $r=.863$.

Attending Behavior Scale (A.B.S.)

This scale developed at Colorado State University as part of the Microcounseling Study (Ivey et al., 1968b), divided attending behavior into five measurable areas: verbal attending, posture, eye contact, body movements, and vocal effect. A single five point constant response scale was devised for each of the five categories. Each scale had five

points that carried a numerical value of from one to five points, with one being lowest and five being highest. An inter-rater reliability computed as part of this study yielded an $r=.898$.

The Decision Making Test (D.M.T.)

This instrument was designed by the experimenter. It was designed to measure three specific aspects of the decision making process: 1) ability to define the problem; 2) ability to generate alternative solutions to the problem; and 3) ability to select the best available alternative. The items selected to be used in this instrument were selected from the NEA Journal's "Unfinished Stories" for the year 1969. The subjects were given six items and one half hour to complete the examination. The results of examination were rated by two experts. The criteria for rating was in relation to the three aspects of decision making described previously. An inter-rater reliability was computed to be $r=.91$.

Non-Verbal Performance Evaluation Test (NVPET)

This instrument was developed at Colorado State University as part of the Microcounseling project. It was used in this study to rate non-verbal skills in relation to four specific performance areas 1) eye contact; 2) individual's body movements; 3) posture and 4) ability to communicate non-verbally. Two raters were used to evaluate the performance of the subjects. Although there is no prior reliability data available, the use of similar instruments has yielded high reliability consistently. The inter-rater reliability was computed at $r=.813$.

Rating of the Data

The Semantic Differential and Miskimin's Self-Goal-Other were

machine scored. The Delayed Auditory Feedback, the Attending Behavior Scale, the Decision Making Test and the Non-Verbal Performance Evaluation Test all required the employment of raters for evaluation. The following is the procedure established and used in the selection, the rating of the data and the safeguards used in the rating.

Selection of Raters

Two raters were selected who had no previous knowledge of the study, as to either the participants in the experiment or to the nature of the study. These raters were chosen from among the graduate students enrolled in the counselor education program at the University of Massachusetts, School of Education.

Training of the Raters

The raters were trained at the same time by the experimenter with the goal of minimizing any differences in scoring of the data that might result due to training effect. The training session proceeded in the following manner: the raters were given a brief talk describing what they would be rating. The raters were then given the individual instruments that they were to use in rating the audio or video tapes. Detailed description of how the instruments were to be used was then given to the raters. At this time any questions that they might have about either the instrument or the procedure was answered. The raters were told that they would receive the written instruments in unmarked packets. The video and audio tapes that were used were presented randomly to the raters as a safeguard against any bias.

In an attempt to measure the power and level effectiveness of the raters, reliability tests (using the Pearson-Product), were run

between the pre-test scores supplied by each rater and between the post-test scores. The results of these scores are reported in this Chapter. In summary, the inter-rater reliability scores for the DAF, NVPET, ABS and DMT was in excess of $r=.80$.

The Problem and Hypotheses

The general problem being addressed in this study is an attempt to establish and test the feasibility of a performance curriculum in human relations. To date, no specific attempts have been made to test a program in human relations that is modular and performance based. Nine hypotheses were generated to test the feasibility of the performance curriculum in human relations. The nine hypotheses follow:

Hypothesis 1: The discrepancy between the trainees self-concept and his goal self-concept will become significantly smaller than the discrepancy between the self-concept and goal self-concept of those who did not receive the training.

The Miskimins' Self-Goal-Other test (Miskimins, 1967) was used as the outcome measure for this hypothesis. A sign test was used to compute the change between the pre-test and post-test means for both the trained and non-trained groups.

Hierarchy I - Relaxation

Hypothesis 2: Those trainees who received training in physical awareness will manifest a significantly different DAF change score after training than those not trained.

The Delayed Auditory Feedback was used as the measure on the

dependent variable for this hypothesis. A sign test was used to compute change between the pre-test and post-test scores for both the trained and non-trained groups.

Hypothesis 3: The semantic differential scores on the concept of relaxation will become significantly more favorable in the experimental group than in the control group.

The semantic differential was used as the outcome measure for this hypothesis. A parametric statistic would not be used to test this hypothesis due to the failure of the data to meet the requirement of normal distribution of scores around the means. The sign test, a non-parametric statistic was used instead to test the differences between pre-test and post-test scores for both groups.

Hierarchy II - Non-Verbal Awareness

Hypothesis 4: Students receiving training will improve their non-verbal skills and will manifest a higher score on the NVPET after training than those not trained.

The Non-Verbal Performance Evaluation Test was used as the outcome measure for this hypothesis. A sign test was used to examine changes in score between the pre-test and post-test for both the trained and not trained groups.

Hypothesis 5: The semantic differential scores on the concept of "non-verbal communication" will become significantly more favorable in the experimental group than in the control group.

A semantic differential was used as the outcome measure for this hypothesis. Due to the marked skewness of the distribution of scores,

a parametric statistic could not be used. A non-parametric statistic, the sign test, was used to test this hypothesis.

Hierarchy III - Attending Behavior

Hypothesis 6: Those receiving training in attending behavior would significantly improve their scores on the A.S.S. after training than those not trained.

The Attending Behavior Scale was used as the outcome measure to test this hypothesis. A sign test was used to analyze the data generated as a result of the testing of hypothesis 6.

Hypothesis 7: Semantic differential scores on the concept of "attending behavior" will become significantly more favorable in the experimental group than in the control group.

A semantic differential was used as the outcome measure for this hypothesis. A sign test was used to test this hypothesis. The sign test was used because of the marked skewness of the data.

Hierarchy IV - Decision Making

Hypothesis 8: Those students receiving training in decision making will significantly improve their scores on the D.M.f. while the untrained group will not improve.

The Decision Making Test was used as the outcome measure for hypothesis 8. A sign test was used to test any changes in scores from pre-test to post-test for both the trained and non-trained groups.

Hypothesis 9: The semantic differential scores on the concept

of "decision making" will become significantly more favorable in the experimental group than in the control group.

A semantic differential was used as the outcome measure for this hypothesis. As in the results of all the data gathered from the semantic differentials used in this study, the results were not normally distributed and therefore a non-parametric statistic had to be employed. The sign test was used to make the statistical evaluations for this hypothesis.

Summary

Due to the very unusual distribution of scores in all the results, a non-parametric statistic, the sign test, was utilized to measure any statistical differences that might occur due to treatment. Change scores for the experimental and control groups were randomly matched. The sign test was computed on the basis of this random matching. The results of the parametric analysis is included in the appendix.

The research design, the instruments used to evaluate the outcomes of the research, the hypothesis to be tested, the statistical evaluations and the procedure used to rate the data have been presented. The results of testing of the hypothesis and the discussion of those results will be presented in chapters five and six respectively.

Chapter V

Analysis of Data

In this chapter, the statistical analysis for each hypothesis will be presented. The sign test was used to test the various hypotheses generated by this study.

General Hypothesis

The central question of this study was as follows: Could a feasible performance based program in human relations be established? To test this central question nine specific hypotheses were generated and tested. It was predicted that a statistically valid study would support the general hypothesis. It was hoped that, as a result of this study, a possible model would be made available for the establishment of a workable performance curriculum in human relation.

Self-Concept

Hypothesis 1: The discrepancy between the trainees' self-concept and his goal self-concept will become significantly smaller on the MSGO than the self-concept and goal self-concept of those who did not receive the training.

To test hypothesis 1, a sign test was computed between the pre-test and the post-test change scores for both the trained and non-trained groups. Results of this analysis may be seen in Table 1.

As indicated in Table 1, there was no statistical significance between the two groups. It may be noted that eight out of eleven experimental subjects had higher change scores in relation to the

subjects in the control group. While the distribution of scores was skewed the mean improvement for the experimental group was nine points, and the mean improvement score for the control group was .88 points. The change in mean scores does indicate that after training, the discrepancy between self-concept and goal self-concept did decrease for the trained group. Due to the lack of statistical significance, the hypothesis was rejected.

Hierarchy I - Relaxation

Hypothesis 2: Those trainees who received training in physical awareness will manifest a significantly different DAF change score after training than those not trained.

A sign test was used to analyze the data. As indicated in Table I there was no statistically significant results between the two groups. It may be noted that the percent increase for both groups was equivalent. This percent increase was computed at 58% for the experimental group and 54% for the control group. The probability statement generated by the sign test reflected a higher change score in seven out of eleven in the experimental group than in the control group. Due to the lack of statistical significance the hypothesis was rejected.

Hypothesis 3: The semantic differential scores on the concept of relaxation will become significantly more favorable in the experimental group than in the control group.

A sign test was used to test hypothesis 3. The results of this analysis can be seen in Table III.

The sign test revealed that the attitude of those trained toward

their ability to relax improved significantly. The probability statement was derived from the fact that nine subjects in the experimental group had made more improvements than the controls.

Hierarchy II - Non-Verbal Awareness

Hypothesis 4: Students receiving training will improve their non-verbal skills and will manifest a higher score on the NVPET after training than those not trained.

A sign test analysis was used to test the hypothesis that the non-verbal skills of those trained would significantly improve while those not trained would not improve. The results of the analysis can be seen in Table IV.

The results of the analysis demonstrated that those receiving training did significantly improve their skills in non-verbal communication. $P = .033$ was secured.

For those who did not receive training there was no significant increase in their non-verbal skills. The probability statement reflected in this sign test was based on the fact that nine experimental subjects had higher change scores than the controls.

These findings seem to indicate that the training in non-verbal awareness carried out as part of this program seem to help the trainees improve their non-verbal skills. The hypothesis was maintained.

Hypothesis 5: The semantic differential scores on the concept of "non-verbal communication" will become significantly more favorable in the experimental group than in the control group.

A sign test was used to test hypothesis 5. Due to a marked skewness a non-parametric statistic was used.

The results of this analysis seem to indicate that the attitude of those trained in non-verbal awareness increased significantly towards their ability to communicate non-verbally. The attitude of those students not receiving training did not significantly change. The probability reflected in this sign test indicated that nine out of eleven experimental subjects had better change scores than control's change scores. These findings would seem to permit the conclusion that training in non-verbal awareness did facilitate an attitudinal change in the trainee's relation to skill in non-verbal communication. Results indicate support of hypothesis 5.

Hierarchy III - Attending Behavior

Hypothesis 6: Those receiving training in attending behavior would significantly improve their scores on the A.B.S. after training than those not trained.

A sign test was used to analyze the data generated as a result of hypothesis 6. A sign test was computed between the pre-test and post-test differences for both the non-trained and trained groups. Results of this analysis may be seen in Table VI.

As can be seen from Table VI the trained group significantly improved in the four aspects of attending behavior. There was significant improvement by those trained. The probability statement derived from this sign test reflects the fact that the eleven in the experimental group had better change scores than the control's score. Those not receiving training did not significantly improve their attending

behavior skills in relation to their attending behavior skills.

These results appear to indicate that the training in attending behavior significantly improved the skill level of the trainees. These results indicate support of hypothesis 6.

Hypothesis 7: Semantic differential scores on the concept of "attending behavior" will become significantly more favorable in the experimental group than in the control group.

A sign test was used to test hypothesis 7. The sign test was used due to the marked skewness of the distribution of scores. As Guilford (1967) suggests, a non-parametric statistic should be used if there is not a normal distribution. Table VII yields the results of this analysis. These results are based on the fact that all eleven in the experimental group had higher change scores than those in the control group.

The results of the analysis seemed to indicate that those individuals receiving training in attending behavior attitude towards their skills in attending behavior did not statistically change. It can be further assumed that the data does not support hypothesis 7.

Hierarchy IV - Decision Making

Hypothesis 8: Those students receiving training in decision making will significantly improve their scores on the D.N.T. while the untrained group will not improve.

A sign test was used to statistically test the results of training in decision making. The results of this analysis may be seen in Table VIII. These results are based on a probability derived from

the fact that ten subjects had higher change scores in the experimental group than those subjects in the control group.

The results of this analysis seemed to clearly indicate that those who did receive training in decision making scores improved significantly. Those who were not trained did not demonstrate a significant change in their score. This analysis would seem to clearly indicate the support of hypothesis 8.

Hypothesis 9: The semantic differential scores on the concept of "decision making" will become significantly more favorable in the experimental group than in the control group.

The sign test was used to analyze the data generated by the examination of hypothesis 9. The sign test was used because the scores were not normally distributed and therefore, a parametric statistic could not be analyzed (Guilford, 1967). The results of this analysis may be seen in Table IX. The results reflect a probability statement based on higher change scores of all subjects in the experimental group than the control group.

As can be readily seen from the data listed in Table IX those who were trained had a significant change in their attitude towards their ability to make decisions. Those who did not receive the training in decision making did not experience this same significant change in their attitude towards their ability to make decisions.

Change Scores		Direction of Difference	Sign
E	C		
3	-9	$X_e < X_c$	-
-8	-1	$X_e > X_c$	+
-34	-11	$X_e > X_c$	+
-6	-4	$X_e > X_c$	+
0	0	$X_e = X_c$	0
3	6	$X_e > X_c$	+
-29	-11	$X_e > X_c$	+
-18	-10	$X_e > X_c$	+
7	6	$X_e < X_c$	-
4	-4	$X_e < X_c$	-
2	29	$X_e > X_c$	+

P = .113

Table I

Miskimins Self-Goal Discrepancy Scale

Change Scores		Direction of Difference	Sign
E	C		
-13	11	$X_e > X_c$	+
-6	5	$X_e > X_c$	+
-23	-22	$X_e > X_c$	+
1	-20	$X_e < X_c$	-
-9	-24	$X_e < X_c$	-
-18	-14	$X_e > X_c$	+
-12	10	$X_e > X_c$	+
-5	-2	$X_e > X_c$	+
10	2	$X_e < X_c$	-
3	-20	$X_e < X_c$	-
-1	2	$X_e > X_c$	+

P = .27

Table II
Delayed Auditory Feedback

Change Scores		Direction of Difference	Sign
E	C		
6	7	$X_e < X_c$	-
22	14	$X_e > X_c$	+
8	-1	$X_e > X_c$	+
1	1	$X_e = X_c$	0
15	-3	$X_e > X_c$	+
3	-9	$X_e > X_c$	+
6	-6	$X_e > X_c$	+
15	10	$X_e > X_c$	+
10	-5	$X_e > X_c$	+
20	19	$X_e > X_c$	+
11	-4	$X_e > X_c$	+

P = .011

Table III
Semantic Differential Scale

Change Scores		Direction of Difference	Sign
E	C		
17	10	$X_e > X_c$	+
9	-17	$X_e > X_c$	+
32	10	$X_e > X_c$	+
19	30	$X_e < X_c$	-
11	-27	$X_e > X_c$	+
14	6	$X_e > X_c$	+
-22	-97	$X_e > X_c$	+
17	30	$X_e < X_c$	-
28	-4	$X_e > X_c$	+
12	-17	$X_e > X_c$	+
77	-15	$X_e > X_c$	+

P = .033

Table IV

Non-Verbal Performance Evaluation Test

Change Scores		Direction of Difference	Sign
E	C		
42	14	$X_e > X_c$	+
15	-9	$X_e > X_c$	+
29	11	$X_e > X_c$	+
25	14	$X_e > X_c$	+
29	4	$X_e > X_c$	+
17	19	$X_e > X_c$	+
-2	-2	$X_e = X_c$	0
3	-6	$X_e > X_c$	+
19	-1	$X_e > X_c$	+
20	-17	$X_e > X_c$	+
20	14	$X_e < X_c$	-
33	-5	$X_e > X_c$	+

F = .02

Table V
Semantic Differential

Change Scores		Direction of Difference	Sign
E	C		
.25	-1.00	$X_e > X_c$	+
.75	-1.00	$X_e > X_c$	+
.75	.25	$X_e > X_c$	+
1.00	.75	$X_e > X_c$	+
.75	-.75	$X_e > X_c$	+
1.25	0.00	$X_e > X_c$	+
1.00	.50	$X_e > X_c$	+
1.00	.50	$X_e > X_c$	+
1.00	-1.00	$X_e > X_c$	+
1.25	-.75	$X_e > X_c$	+
1.00	.25	$X_e > X_c$	+

P = .001

Table VI
 Attending Behavior Scale

Change Scores		Direction of Difference	Sign
E	C		
36	-7	$X_e > X_c$	+
9	6	$X_e > X_c$	+
21	6	$X_e > X_c$	+
1	8	$X_e < X_c$	-
0	1	$X_e < X_c$	-
1	-5	$X_e > X_c$	+
9	-5	$X_e > X_c$	+
36	8	$X_e > X_c$	+
39	-3	$X_e > X_c$	+
34	13	$X_e > X_c$	+
-6	11	$X_e < X_c$	-

P = .113

Table VII
Semantic Differential

Change Scores		Direction of Difference	Sign
E	G		
17	11	$X_e > X_c$	+
56	34	$X_e > X_c$	+
63	-16	$X_e > X_c$	+
53	33	$X_e > X_c$	+
19	10	$X_e > X_c$	+
50	28	$X_e > X_c$	+
89	78	$X_e > X_c$	+
38	54	$X_e < X_c$	-
5	-16	$X_e > X_c$	+
25	-8	$X_e > X_c$	+
40	-10	$X_e > X_c$	+

P = .001

Table VIII
Decision Making Test

Change Scores		Direction of Difference	Sign
E	C		
9	-24	$X_e > X_c$	+
9	-21	$X_e > X_c$	+
-2	4	$X_e < X_c$	-
19	-4	$X_e > X_c$	+
32	-4	$X_e > X_c$	+
7	4	$X_e > X_c$	+
2	2	$X_e = X_c$	0
-10	-21	$X_e > X_c$	+
29	13	$X_e > X_c$	+
30	-1	$X_e > X_c$	+
30	-1	$X_e > X_c$	+

P = .011

Table IX
Semantic Differential

Chapter VI

Discussion

This study attempted to address itself to two central problems. This chapter will concern itself with the possible answers to those problems. Implications for further research and development will also be discussed. The limitations of this study will be reviewed.

The first and most crucial problem is related to the development of the performance curriculum. Could a performance curriculum in human relations be established to yield specific and measurable outcomes? Within each hierarchy the skill that was to be learned was defined and the criteria for measuring the attainment of that skill was also included. The essential answer to the first question can be expressed succinctly; the curriculum worked. There appears to be evidence of behavioral changes, in the predicted direction, among those trained. Specifically, it would then appear that a viable and acceptable performance curriculum in human relations can be developed.

The development of the performance curriculum had clearly as its goal the establishment of components that could be implemented. The evidence for this stand comes out of the results presented in Chapter V.

The second problem, which was whether or not the performance curriculum could yield specific, predictable and measurable outcomes, could be answered primarily in the affirmative. Nine specific hypotheses were established to answer this question. The outcomes of these nine hypotheses, to facilitate discussion were divided into three

parts: the first part dealt with the self-concept of the subjects; the second with their attitudes to the four skills; and the third with their skill development. Each part of this second question will be discussed in the following paragraphs.

The first question was one of self-concept. Did the training make any difference in the trainee's self-concept? The MSGO was used to measure any changes that might occur due to training in the self-concept of the trainees. The results of the MSGO did not reveal a significant improvement between the pre-training and post-training period for the experimental or control group. A review of the individual MSGO scales also revealed no significant change in either self-concept, goal self-concept or self-concept as believed to be perceived by others. On the other hand, an examination of the raw data demonstrates that eight out of eleven did experience a change in self-concept from before to after the program.

There is some clinical evidence that would be helpful to view at this point in relation to the issue of self-concept. This program had as part of its character the encouragement of the trainees to develop a self-awareness in relation to the skills and program. The three trainees who did not demonstrate, on the MSGO, significant change in self-concept did appear to experience a change in their self-awareness. An example of this change may be reflected in a brief look at one of these three girls.

Joan was one of the subjects who did not experience a change in self-concept as measured by the MSGO but who did appear, based on our clinical observation, to experience a change in self-awareness. This

change is witnessed by Joan's refusal to participate in the first micro-teaching lesson to a later real interest and involvement in micro-teaching. Joan had resisted being involved in teaching at first over the issue of "manipulation". By the third hierarchy she had developed a self-awareness by which she could teach the skills to the children in such a way she would feel that the children would not be "manipulated". Joan approached the lesson with no specific program and spontaneously developed a lesson in attending behavior that was successful. The final evidence for Joan can be seen in Joan's desire to help us teach the course in human relations. It may be assured, based on this clinical evidence that although Joan's self-concept was not changed in a measurable way, her self-awareness was altered. A similar change seems to have been experienced by the other two girls, Jill and Martha.

From a statistical point of view the findings did not support the research of Zevia (1970; Colembiewski (1967); Argyris (1964); and Underwood (1955) who found that human relations training programs did effect a change in the self-concept of the participants. This research would tend to support the contentions of Campbell and Dunnette (1968) who argue that one cannot say with certainty whether or not the experience led to any changes in self-perception. However, the clinical evidence presented above seems to indicate that some self-perceptual change did occur.

The second question posed in problem two concerned the individual skills being taught to the trainees. Could a human relations program train its subjects in relaxation, non-verbal communication, attending

behavior and decision making so that their skill would significantly improve. The data generated by this study generally supports the hypothesis that these skills can be learned in a four week training program. Three out of four of the hierarchies tested yielded significant results; with only the testing of the relaxation hierarchy not yielding statistically significant results.

The first hierarchy that the trainees experienced was physical awareness of relaxation. It was predicted that those individuals receiving training would make significantly fewer mistakes on the DAF. Data from a recent study by Rudman (1969) indicated that the DAF might be a suitable measure. The data from this study did not support Rudman's research, for both the trained and non-trained group reduced their errors by over fifty percent.

In viewing the data on a post hoc basis it appears that the DAF is a highly reactive measure due to practice effect. Rudman used as his subjects only those whose scores on the Taylor Manifest Anxiety Scale place them at the bottom or top third and he divided his groups based on these results. In the present study, due to random assignment, all three levels were represented in both the control and experimental group. This homogeneity of groups and the reactive effect of the measure could somewhat explain the failure to get significance. More appropriate measures for this hierarchy might have been: 1) self-report; 2) physiological measures; and 3) use of judges' ratings.

The clinical evidence generated as a result of this hierarchy indicated that the trainees did learn relaxation skills. A number of trainees indicated that they were now using relaxation to help them

sleep, to aid them in their classroom presentations, where they student taught, and in conversation. Based on the statistical results, the hypothesis was rejected but the clinical evidence suggest the need for alternative appraisal methods.

The second hierarchy trained the subjects in non-verbal communication. It was predicted that as a result of the training, those trained would significantly improve their non-verbal skills as measured by a three minute video taped, non-verbal interaction. Ratings obtained indicated that the trainees improved their non-verbal skills significantly.

The clinical evidence gathered in relation to this hierarchy supported the statistical findings. The trainees indicated that they became much more aware of the non-verbal messages of others as well as the messages they were transmitting. The trainees generally felt this new awareness was especially true in relation to their classroom teaching experience. The issue and importance of congruence between their non-verbal and verbal messages was also brought to light for some of the trainees.

The results of this section of the study support a good deal of the research reported by Starkey (1969). The results, especially the clinical, supported the arguments of Hall (1959), Ivey (1968b,c), and Huxley (1966) as to the importance of non-verbal communication.

The third hierarchy focused on training in attending behavior. Video taped rating a semantic differential scale demonstrated significant improvement in the trained group. The hypothesis was, therefore, accepted.

The clinical evidence gathered in relation to this hierarchy also supported the hypothesis. An example of this evidence is based on the report of Mary after training. She indicated that she "practiced attending behavior on her husband" and found out "new things about him". She had listened to him in a different way that had encouraged him to speak more freely. Another example was reported by Jean; she indicated that after "listening" to her students, she learned more about what they knew and wanted to learn.

The main difference in attending behavior styles for the experimental group after training appeared to be in verbal following, body movements and relaxation. This observation would seem to indicate that there was an interrelation and cumulative effect between hierarchies.

The results of the research in this hierarchy support the research of Ivey et al. (1968b) and Zeevie (1970). They both effectively taught attending behavior skills to students and achieved significant findings.

The fourth hierarchy had as its goal the instruction of the trainees in decision making skills. A paper and pencil test, the DNT, was used to measure the trainees' ability to make decisions. The results revealed that those trained in decision making significantly increased their score.

The following is an example of the pre-test and post-test response by one of the trainees to question six of the DNT. The score on this question went from nine on the pre-test to twenty-six on the post-test. The pre-test response to question 6 is as follows:

Your children are contributing food for a class party. "I won't eat Mickey's food," one child shouts. "It might have germs on it." Mickey starts to dash about the room yelling "dirty, dirty, dirty,

look out, dirty!"

ANSWERS:

I can't see an issue since I'm not sure what happened concerning last sentence.

ALTERNATIVES:

Since I don't really know what Mickey meant I would inquire of him as to what he meant. I would show concern for Mickey. 1st of all--tell the other child how wrong he was to insult Mickey. Have the two of them discuss how Mickey must have felt so that they get involved in this. Also, help Mickey if he has problems which are devulged as a result of this discussion at a later date. Second, quiet Mickey down. Reprimand the other child quickly. Drop incident if possible. Discuss with the shouting child later.

The post-test response to question 6 is as follows:

ANSWERS:

Issue: Whether to punish 1st child or concentrate your attention on what might be a deeper need in Mickey.

ALTERNATIVES:

1. Calm Mickey down by whatever means work than have 1st child apologize to Mickey.
2. Discuss with the children involved, the feelings evoked by the action. Role play.
3. Calm Mickey. Yell at 1st child at a later time to find out where Mickey is at. First indications indicate an unusual response to a common remark. Find out what Mickey meant by his yelling words.
4. Discuss with Mickey's parents if Mickey does face an unusual problem.
5. Have Mickey get professional help if it's needed.
6. Calm Mickey. Discuss with 1st child only how Mickey must have felt at later time and then follow alternatives 4, 5, etc. at later time also.

It can be clearly seen from a comparison of these two responses the improvement in the decision making process for this trainee. She is

better able to define the problem and can penetrate a large number as well as more appropriate alternatives to the problem stated in question six. The hypothesis that decision making could be effectively taught was maintained.

The clinical evidence, once again, supported the statistical results. Mary, who had initially indicated that she would like to work with us as an assistant, reported that after the hierarchy on decision making, she discovered that she really did not desire to serve as an assistant. She further indicated that after reviewing the issue she saw it from a different light and this light clearly showed her that she did not want to assist us. Further clinical evidence was based on the report of Betty. She had originally decided not to assist; but after going through a process similar to June, she decided to work as an assistant.

The results of the data generated from this hierarchy support the work done by Torrance (1961), Prince (1968), Ivey (1968a), and Tiedeman and Dudley (1967). They all approached decision making from a different vantage point but still established a model that basically included the same components of: 1) problem definition; 2) alternative to action; and 3) choice of an alternative. The decision making hierarchy mirrored the same basic model.

In relation to the effectiveness of the four hierarchies as a whole, there seems to be clinical evidence that would support the idea that they were affectively integrated. This evidence is of two kinds. The first kind reflects itself in the micro-teaching lessons used by the trainees in each hierarchy. As the trainees began to establish

lessons for each hierarchy they began to call more and more on the lessons they learned previously. The lesson prepared by Sally to micro-teach attending behavior clearly reflects this integration. She taught attending behavior in a formal manner; that is, she taught it as a hierarchy. Sally began by teaching relaxation, body movements (non-verbal) and sentence-follow to her elementary school pupils. In essence, her lesson followed the development of the hierarchies from hierarchy one, to two, and to three.

The second category of evidence is based on the report of the trainees during and after student teaching. Many of them indicated that they became much more aware of the importance of being relaxed before the class, of listening to the students, of having a congruent communication style and sorting out data before making decision. This evidence is far from conclusive but does seem to indicate that the hierarchies were not isolated units but integrated modules.

The results of this section seem to support the research of Zeevie (1970); Ungerleider (1969); Carkhuff (1969); and Ivey (1968c) that human relations skills could be effectively taught and learned in a rather short period of time.

The third question posed by this study was in relation to the attitude of those trained towards each skill. Would the trainees' attitude toward their ability to perform the specific skills of relaxation, non-verbal communication, attending behavior and decision making significantly change as a result of training? The answer to this question was generally yes--the results of the statistical test of three semantic differential scales yielded statistical significance.

Only in the semantic differential testing the attitude to engage in attending behavior was significantly not achieved.

These results would also seem to generally indicate that there was no discrepancy between the trainees' ability to engage in a skill and their attitude towards their ability to engage in a specific skill. Three out of four hypotheses were supported that there would be a significant attitudinal change, as measured by the semantic differential scale, for those trained and no change for those not trained.

It is important to note that the finding in relation to this question was not surprising. This lack of surprise is based upon the fact that when you teach an individual some skill he is usually going to feel more competent in that skill than before he knew the specific skill. It would, to be sure, most disheartening if the trainees' attitude did not change after training.

Implications for Further Research

This study ought to be seen as an observational study of a human relations program that was performance based. What needs to be done is a replication of this study in which more precise instrumentation is used and where there is some evaluation of student self-report as to their progress in skill acquisition.

Another possibility for research would be a study in which the effects of modeling by the trainers was measured. Basically, it is the author's opinion that modeling behavior on part of the trainers had a significant effect on the learning process.

A further area for research would be the establishment and testing of a self-contained human relations program; that is, a program in

which the student, on his own, could go about learning the skills without the assistance of instructor or trainer.

An obvious need is to develop and test additional hierarchies for inclusion in future human relations programs.

One of the most important implications is the possible redefinition of the teacher's role from the traditional information giver to a human relations specialist.

As the final implication it would be important to test the complete do, use, and teach model. In this study only the do aspect was tested.

Limitations of the Study

Any study no matter how carefully planned has built into it certain deficiencies that limit the power and predicative potential of the study. This study, not unlike many others had a number of deficiencies that must be kept in mind in relation to interpretation of the findings or in any attempt to replicate the study.

One limitation, which clearly came to light is the evaluation of the first hierarchy, was the reactive effect the DAF had on the performance of the comparison groups at the time of the post-test. The use of an indirect measure was certainly a limiting factor. If the pre-test becomes a treatment variable; then in effect, the comparison group loses its effectiveness as a standard to compare any growth against.

There are at least three alternatives that came to mind as possible ways of remediating the problem. The first alternative is to use a post-test only design, but this has the limitation of not allowing the experimenter to gauge change scores. The second alternative,

which is much more appealing, is to use a Solomon Four Group Design. This design would allow the experimenter to measure and control for any reactive effects that might occur, and therefore, color the results. The third alternative would be to use direct behavioral measures for each skill.

A second limitation of the study was the relatively small number of subjects. This ruled out the use of parametric statistic throughout the evaluation of the program due to the unusual distribution of scores. The non-parametric, sign test, did reveal significance in seven out of nine hypotheses. The obvious answer to this problem is increase the size of the population but this alternative leads into the third limitation of this study--logistics.

This limitation is one that is obviously built into any study that relies on having people and machinery at the same time and at the same place. This did inject an air of mystery as another variable, for one did not know who would be there or who would not but whether or not the equipment would work. The easiest way to solve this problem would be to do research with more controllable subjects such as rats. The suggestion to alleviate the problem is to try and keep the logistic end as simple as possible and keep the equipment in one fixed location.

Another limitation was due to the fact that the experimenter was one of the trainers and his enthusiasm was not controlled for by the design. Along this line, variability among trainers was not controlled for and this might have been a limitation of the study.

The final limitation was that interactions between the control

and the experimental group were not eliminated. This interaction might have prejudiced some of the results. This limitation did not seem to effect the outcome.

Summary

The results seemed to strongly indicate that the study was generally successful. The basic model for the performance curriculum appears to be sound. The skills taught to the trainees based on either statistical or clinical evidence appeared to have become a part of the trainees' repertoire. The self-concept of the participants was not significantly changed but their attitude towards their ability to engage in the specific skills was significantly improved. Finally, the limitations and implications for further research were presented.

Chapter VII

Summary

This study was designed to test the feasibility of establishing a performance curriculum in human relations as a component of the Model Elementary Teacher Education Program. The program ran for one month and was divided into the four hierarchies with each hierarchy being individually evaluated.

The research design employed in this study was basically a random assignment of subjects to a treatment group and a comparison group. A pre-test and post-test was administered to both groups after each of the four training periods, and before and after the entire program.

The trainees in the program were all senior women in the elementary education student teaching block at the School of Education, University of Massachusetts. Twenty-four were randomly selected from a group of volunteers and twelve were randomly assigned to either the treatment or comparison group. The trainers in the program included three doctoral students and one faculty member in Counselor Education at the School of Education, University of Massachusetts.

The criterion measures used in this study were the following: The Miskimin's Self-Goal-Other Discrepancy Scale; The Semantic Differential; Delayed Auditory Feedback; Attending Behavior Scale; Non-Verbal Performance Evaluation Test; and the Decision Making Test.

Results of the study were discussed in relation to the feasibility of program development and the effectiveness of the program in training

people in individual human relations skills. Another facet considered was if any change in attitude or self perception was as a result of the study. Finally, the results of the study were discussed in terms of implications for further research and the limitations of the present study.

Nine specific hypotheses were tested and examined as a result of this study. These hypotheses may be channeled into three distinct groups. The first that training would decrease the size of the discrepancy between the trainee and current self-concept and goal self-concept. The second set of hypotheses was whether or not training would increase the trainee's skills in relaxation, non-verbal communication, attending behavior and decision making. The third group of hypotheses tested whether or not training would effect the attitude of the trainee towards his ability to perform these specific skills.

Results of the hypotheses testing revealed: 1) no significant change in the discrepancy between current self-concept and goal self-concept; 2) a statistically significant improvement in the skills of the trainees in three out of the four areas of human relations taught in this study and 3) a significant improvement or change in attitude of the trainees toward their ability to perform these various skills.

The results of this testing of hypothesis were further discussed in terms of the feasibility of the establishment of a performance curriculum in human relations and implementation for further research. The results further suggest the need to examine the entire do, use and teach learning process in terms of their individual contributions to the outcomes of each hierarchy.

This study established a tripartite teaching model--the do, use and teach model. This program is reflected in a six step approach to the learning process in each hierarchy. This process is reflected in these following six steps: 1) Discussion of the skill to be learned; 2) Experience and "try on" the skill; 3) Use of the skill in everyday life; 4) Teach the skill to one other; 5) Write a program to micro-teach the skill and 6) Micro-teach the skill to a specific population. In this case, the population was elementary school pupils.

The basic structure that tied these steps together in a meaningful whole was the performance curriculum approach of Mager (1962). This use of behavioral objectives and instructional alternatives provided a feasible approach to the problem of teaching a human relations program. In essence, the use of this structure provided a workable instructional model that is indeed in need of further refinements, developments and study.

The study further revealed that the development of additional hierarchies was needed and that these hierarchies could be established with do, use and teach as the process statement and their performance curriculum as the structural model. This suggestion does not delimit the addition or deletion of any aspects of either the process or the structure.

Finally, this study dealt with two specifically interrelated components: 1) the testing of the effectiveness of each hierarchy in teaching a human relations skill and 2) the development of a process and a structure for a human relations program. The results seem to generally indicate initial success on both fronts; but more

importantly, the results provide encouragement for further research, development and study.