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To the Graduate Council:

I am submitting herewith a dissertation written by Imelda Dorsey Van Fleet entitled "A Study of the Effects of Antecedent Conditions on the Different Kinds of Problems Perceived by Teachers When Implementing Curriculum Change." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Administration and Supervision.

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A STUDY OF THE EFFECTS OF ANTECEDENT CONDITIONS ON THE DIFFERENT KINDS OF PROBLEMS PERCEIVED BY TEACHERS WHEN IMPLEMENTING CURRICULUM CHANGE

A Dissertation

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ABSTRACT

The problem in this study was to determine how certain conditions antecedent to the teaching act influenced the kinds of problems perceived by teachers when implementing curriculum change. Specifically, these antecedent conditions were teacher attitudes about teaching children as measured by the Minnesota Teachers' Attitude Inventory, age, educational preparation and teaching experience.

The sample which provided the data for this study was the teachers who implemented the 1973-74 Kentucky Pilot Kindergarten Program. The initial 100 units provided pilot programs for study pending a complete state supported kindergarten program.

The data obtained represented the problems perceived in implementing a new educational program. A Q-sort composed of anticipated problems submitted by each teacher was analyzed in terms of two main effect factors that distinguished the kinds of problems perceived in either the nomothetic dimension or in the idiographic dimension. Q-sort arrays were arranged for groups classified by antecedent variables and each sub-classification was created in terms of factor scores for the two main effects, the expectations dimension and the concern orientation. Three levels of the expectations dimension were nomothetic, transactional and idiographic expectations. Four levels of the concern orientation factor were concern for institutional or program needs, group needs, self needs, or individual child needs.

Analysis of variance between each antecedent variable grouping

and within each subgroup yielded highly significant levels of variance between the kinds of problems perceived among groups and within groups. The significant variance distinguished the kinds of problems perceived in either the nomothetic or the idiographic dimensions, thereby verifying the effect of antecedent conditions on perception.

All antecedent group scores varied significantly in terms of the expectation dimension factor to support the following major conclusions regarding the problem perception of the teachers who implemented the 100 units in the Kentucky Pilot Kindergarten Program: (1) attitude was an antecedent to perception which was significantly related to the kinds of problems perceived; (2) age was an antecedent to perception which was significantly related to the kinds of problems perceived; and (3) teaching experience was an antecedent to perception which was significantly related to the kinds of problems perceived.

More specifically, teachers with low attitude scores perceived problems in the nomothetic expectations dimension and concerns orientation. Teachers with high attitudes scores perceived more problems in personalizing roles. Younger teachers, though more concerned about their own personal needs than the median age group, perceived problems in personalizing roles or the idiographic frame of reference. Although the results were not consistently significant, teachers originally prepared to teach the youngest pupils tended to differ from those who majored in teaching older children specific subjects. Their expectations for acceptable behavior or conditions tended to be idiographic, whereas the teachers prepared to teach older children perceived normative problems in socializing individuals. Teaching experience influenced significantly

the kinds of problems perceived with beginning teachers exhibiting more concerns for themselves and the child. More experienced teachers with a varied experience background focused their concerns more exclusively on the child, and these concerns involved more idiographic expectations than perceived by less widely experienced teachers.

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CHAPTER I

INTRODUCTION

When a new program is introduced into a school system, whether on a national, state, district or schoolwide level, the ultimate success or failure of the innovation depends greatly upon the capabilities and the interpretative efforts of the person responsible for the actual implementation of the program with the children for whom the curriculum was planned. This person, the classroom teacher, becomes an agent of change in the school social system. It is, therefore, essential to the change process that the teacher not only support the proposed change, but also possess concise understanding of the proposed curriculum goals and the philosophy underlying the procedures for attainment of these goals.

Self-understanding is a further capability of the teacher which conceivably could enable clear interpretation and implementation of goal directed procedures without adulteration of the intended program purposes through personal bias or undue emphasis on the teacher's own needs-disposition. When problems are encountered, energies are directed toward solutions to these problems rather than toward the intended curriculum goals. Possible proliferation of curriculum designs and the polarization of curriculum goals may result when the teacher is without this capability for self-understanding of their own motivations and behaviors.

During the 1973-74 school year, the state of Kentucky implemented just such a new program statewide. The legislature approved and funded a

pilot program of 100 kindergarten units dispersed among the local school districts throughout Kentucky. Like many other changes in public school programs, this provision for publicly supported kindergartens had been proposed and strongly recommended many times before. Previous studies had clearly defined the need for such programs and the benefits of early childhood education had been adequately demonstrated through previous studies. Further, the rapid establishment of new programs and the increase of current research which offered strong support in this area had gained great impetus through federal programs such as the ESEA Title I programs. Prior to 1965, studies were already under way on the need for kindergarten programs throughout Kentucky. Retention and dropout studies combined with the data on school entry records for six and seven year old children had been the focus of earlier need studies. Information gained through research on the federal programs with their required assessment procedures further established a strong basis for enriching the early childhood experiences of children.

Despite the emphasis on early childhood education that had resulted from the aforementioned developments, kindergarten education was an old educational innovation that had been favored by educators and parents for many years. The first kindergartens in the United States of America were those in Watertown, Wisconsin in 1856 and in St. Louis, Missouri in 1873. Until as late as 1964 only 56.9 percent of first year enrollment had been previously enrolled in kindergarten programs in the United States.[1]

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[1]Kentucky Department of Education, Pre-elementary Education in Kentucky (Frankfort: Kentucky Department of Education, 1965).

This slow integration of a desirable and accepted educational practice is not unlike the past record of education in accepting and integrating innovations into the nationwide practices of public school classrooms. Sporadic adoptions and widespread distortions of original curriculum models have generally characterized educational change.[2] In a presentation regarding what has been learned from research in early childhood education, Lillian Katz stressed that with all research models there have been problems of implementation and that even with the best models, distortions have occurred during this implementation process.[3]

The implementation of the Kentucky Pilot Kindergarten Program was, indeed, another exercise in planned change in an established school curriculum. The success or failure of the programs depended, in no small part, on the nature of each person who initiated the programs with the receiving clients, the children.[4] The personality of the teacher has been studied widely by researchers from various disciplines such as psychology, sociology, anthropology, and no less by education itself.[5] Despite lack of agreement on precise personality factors in successful teaching, it is generally conceded that the teacher is a most important factor affecting

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[2]Robert G. Owens, Organizational Behavior in Schools (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), pp. 127-128 and 140-141.

[3]Lillian Katz, from her speech "Research in Early Childhood Education," presented in Kentucky's Pilot Kindergarten Pre-service Workshop at Louisville, Kentucky, June 1973.

[4]Lillian Katz, "Early Childhood Education," The Educational Forum, (Urbana, Illinois: Kappa Delta Pi, May 1973), pp. 393-397.

[5]N. L. Gage, ed., Handbook of Research on Teaching (Chicago: Rand-McNally and Company, 1963), pp. 406-415.

how a pupil performs, the values he acquires, his behavior and his level of achievement. Administrators and educational personnel supervisors have utilized personality factors in the selection, evaluation and retention of teachers. Through these processes they have attempted to predict and determine the effectiveness of teachers. Empirical evidence has partially supported their actions, but much remains to be discovered about the relationships which exist between the personality of the teacher and the impact which that person as an individual has on the teaching-learning process. The proliferation of change models in curriculum, even the complete abandonment of new programs, has been no less affected by the teacher who must implement the models in the classroom. The teacher's influence in curriculum change has been intuitively accepted, but empirical evidence has been contradictory when available.

The first year has frequently represented a crucial period in the career directions for new teachers. However, teachers entering completely new situations have also been subjected to crisis and conflicts. The problems which teachers have experienced may have influenced the teachers' decisions regarding their new roles.

Accordingly, what the teacher communicates has not always been that which was intended in the planned lesson. For example, a child learned from the teacher to feel personal worth or rejection as a result of the methods used in helping him cope with new experiences when first he selected inadequate coping behaviors. Situations which were perceived as problems by the teacher resulted in coping behaviors by the teacher, all of which were observed and experienced by the pupil. Concomitant

learning has resulted when the pupil has shared these situations with the teacher. Verbal and nonverbal responses both contributed to these impressions, or perceptions, of the teacher's coping behavior, the judgements and the decisions which resulted from situations perceived as problems by the teacher.

Perhaps more urgent have been the effects of the teachers' perceptions of situations which controlled their choices in decision making. The selection of learning materials, the organizational plan for their use, the areas stressed or neglected, reinforced or abandoned have all been choices or decisions whereby the teacher has had subtle influence on the learning outcomes. Each of these actions has been preceded by a decision-making process, consciously or subconsciously, by the teacher.

The kindergarten experience has been a crucial point for examining closely the exact nature of the teachers' influence on the child as a future learner. However, more must be understood about the teaching act and its consequences. Steps in this direction have been taken in the work done on protocol materials,[6] in programs for urban teachers such as the Cooperative Urban Teacher Education Program, and in mini-teaching units in the preparation of teachers.

Protocol materials are in-service materials designed to facilitate the study of behaviors. Concepts mastery is stressed in consistently recognizing instances of the concept under a variety of simulated and real

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[6]Doris W. Gunderson, Protocol Materials (Washington: National Center for the Improvement of Educational Systems, United States Office of Education, 1973).

life situations without supporting cues or prompts. Diagnosing pupil behaviors and the underlying basis for particular pupil responses more effectively would be at least one of the desired outcomes of such studies.

In the urban programs it is stressed that the gulf between experiences and perceptions of . . . teacher could be significantly narrowed through the development of a comprehensive program designed to (1) facilitate teacher self-understanding of his own anxieties, insecurities and prejudices; (2) enhance his understanding of the pupil's environment; and (3) equip him with teaching skills suitable for those pupils.[7]

Thus, the antecedents of the teaching acts have been recognized as vital to the nature of the act itself. The development of programs such as these rested on the recognition of the learning needs of teachers which must also be satisfied before teachers can correctly identify, realistically plan, and effectively initiate strategies to satisfy pupil needs. All too little has been known about the teachers' needs which may form the basis for the antecedents to their teaching acts or decision making in the classroom.

How can teacher educators better recognize the needs of teachers before these teachers are before their own classes? How can teachers be identified for individualized in-service training? How can supervisors diagnose the underlying causes for teacher failure or the weak implementation of carefully planned new programs? Essential to laying a research

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[7]Grant M. Clothier, "The Cooperative Urban Teacher Education Program," Phi Delta Kappan, 14, No. 10 (Bloomington: Phi Delta Kappa, June, 1973), p. 667.

foundation for solutions to these and other related problems, better insights into these antecedents to perception and their overt expression in teaching behavior must be identified and better understood.

Such understanding is needed about relationships that exist between teaching attitudes and the cognitive perceptions of teachers which direct their choice-behaviors as curriculum decision makers. These insights may be gained through investigations of the kinds of problems perceived by teachers in the process of implementing change in the classroom, particularly changes which are aimed at the younger child. Kindergarten pupils have not had enough experiences in formal education to have established strong negative perceptions about himself as a student along with persistent accompanying negative behaviors. Kindergarten teachers would perceive kinds of problems which would be less influenced by pupil behaviors learned with previous teachers. The Kentucky Pilot Kindergarten Program represented exactly this type of situation through which some of the insights might be gained into the kinds of problems perceived by teachers with certain attitudes about teaching children when engaged in the curriculum change process.

I. THE PROBLEM

Statement of the Problem

The problem investigated in this study was: How do certain conditions antecedent to the teaching act influence the kinds of problems perceived by teachers when implementing curriculum change? Specifically, those conditions antecedent to the teaching act that were investigated were teachers attitudes about teaching children, age, educational preparation and teaching experience.

The purpose of this study was to examine the relationship between the kinds of problems perceived by the teachers who implemented the Kentucky Pilot Kindergarten Program during the 1973-74 school year and (a) their attitudes toward teaching children as reflected in their scores on the Minnesota Teachers' Attitude Inventory, (b) their ages (classified by 20 to 35 years, 36 to 50 years, and 51 to 65 years of age), (c) their educational preparation (classified by an elementary major with kindergarten endorsement, secondary subject with both elementary and kindergarten endorsements), and (d) their teaching experience (classified by less than a year of experience, one or more years of experience in kindergarten, one or more years of experience in elementary only, one or more years in secondary in any combination with the other levels of school organization).

Delimitations

1. This study was confined to a study of the teachers in 100 kindergarten units in a pilot program in Kentucky during the 1973-74 school year. Private kindergartens were not included in the study; neither were the numerous other kindergartens which either were already in existence or were initiated simultaneously with the pilot programs. The latter were financed locally and, therefore, were not subjected to the guidelines which pilot programs were required to follow.

2. The data obtained represent that which was available in an experimental program in its initial year during the 1973-74 school year. The experimental nature of this venture allowed considerable latitude in methodologies, location, and selection of facilities, materials and

pupils. Despite this freedom to individualize programs, local units were subjected to certain restrictive guidelines, recommendations, and reviews to which future kindergarten programs may or may not be subjected. Each was required to comply with the same basic guidelines established for facilities, class size, length of class and minimum preparation standards for the teachers. Further, each unit had the same budget allocation as all of the others, but how the money was spent was the prerogative of local districts.

Limitations

1. This study was exploratory in nature and as such was subjected to the weakness of this type of research. There was a large number of extraneous variables, the measurement of these variables in relation to the study was not precise, and the study was ex-post facto in nature.[8]

2. There are problems inherent to attempts to isolate personality variables which are themselves in a dynamic state of interaction and constant evolution, although attitudes resist certain types of change with differing intensity and persistence. Therefore, the attitudes did, to some extent, represent a sample in time for those individuals, just as their perceptions of their own problems were not static and were regarded as those existing at that moment. Thus, the focus of this investigation was on the relationship existing between interacting forces in a dynamic social system which were subject to interpretation during a moment of development of the total field of experiences.

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[8]Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart, and Winston, 1964), pp. 388-391.

Assumptions

The basic assumption underlying this investigation was that cognitive perception provides the directing force for teacher behaviors. These perceptions vaired among individuals for the same phenomena or situation as the cognitive recognition capabilities were affected by past as well as present experiences for each person experiencing that phenomena. This selective interpersonal perception by teachers dominated their teaching styles as they placed emphasis on those dimensions of social behavior that had meaning for them and that satisfied their particular needs disposition. The attitudes and opinions of teachers are subject to, but resistant to, change.

Justification for the Study

Education as a social institution has traditionally trailed other social institutions in initiating and adopting change. In addition to the slowness in adopting new ideas, educators have found that innovations that have reached the level of classroom implementation have been modified, distorted, reinterpreted, and proliferated through so many diverse articulations that, in actual practice, some innovations have been scarcely related to the originally conceived ideas. While this may have some recognizable merits in fostering creativity and change in curriculum practices, more often these distortions serve to maintain the status-quo. If the purposes of curriculum planning are to be realized, teachers must be prepared to accept the role of the change agent in carrying out these plans.[9]

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[9]John B. Hough and James K. Duncan, Teaching Descriptions and Analysis (Reading, Massachusetts: Addison-Wesley Publishing Company, 1970), p. 4.

The teacher must be included in plans that involve new programs from preliminary planning stages through the most crucial implementation stage, for it is at this prime level of operation that proponents of change must struggle for survival of their ideas in education. Those supporting innovative programs usually present their greatest defense of these programs before the public, the school boards and to school administrators, too often completely overlooking the classroom teacher in the process of convincing others in decision making positions of power. But the teacher also makes decisions--decisions which are more subtle and elusive, but no less critical to the directions new programs may take. Most of these decisions are at the level of awareness for individual teachers, but there are others so private and so personal that even the teachers themselves are unaware of the factors that are antecedent to their decisions. These choices from alternatives for subsequent antecedents to choice factors. Behavioral antecedents, then, which exist in the experiential background of teachers and shade their current perceptions, can be contributing factors to the teachers' competency in coping with conflicts in the teaching role.

Educators recognize the unique understanding that children place on verbal expression, behavioral responses, and nonverbal communications. Experiences with compensatory education and racial integration of the classrooms have contributed to education's sensitivity to interpersonal relationships. Teachers are no less immune to misinterpretations of the behaviors and intentions of others, for they are also required to cope with cross-cultural, multi-ethnic situations in their classes and with their colleagues, as well as in the communities they serve. Thus, a

broadened experience base with cross-cultural implications and increased understanding of one's inner-directed lives is increasingly essential to the teaching effectiveness of all classroom teachers today. If teachers are to improve their interpersonal relationships with individual pupils, then there must be improved understanding of and control over these antecedents to perception and subsequent decision making processes guiding teaching behavior.

There are numerous learning theories to explain the origins of behavior. How a person knows, perceives and subsequently responds is of interest to the "Field Theorists" who contend that present responses are influenced by the total life experiences which have molded each individual's personality. Cognitive theorists have investigated the unique ways that people assimilate, categorize, interpret, classify and subsequently recall information gained through experiences to creat a dynamic information selection, storage, and retrieval system that enables one to recognize and respond consistently to what is known about situations to that point.[10] These cognitive perceptions may be altered by each new experience, but the structure of cognition is reasonably stable as one approaches adulthood. Behavior "sets," attitudes, opinions and beliefs are made up of the fabric of the cognitive structures of individuals.

What is the effect of each teacher's way of knowing, their cognitive perceptions, upon the teaching-learning process? An investigation of the effect that a teacher's behavior, that is, an activity precipitated by

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[10]Marvin E. Shaw and Phillip R. Costanco, Theories of Social Psychology (New York: McGraw-Hill Book Company, 1970), pp. 171-187.

cognitive perceptions, had upon a student's performance was conducted by Ivan D. Steiner. He and his associates postulated that the perception of freedom one attributes to others significantly changes the way one acts or responds. In a study of the consistency with which teachers rewarded pupils' responses, it was found that one who behaved as an unpredictable rewarding agent was perceived to be a comparatively free operator. A presumably free operator elicited ingratiating behavior and attentiveness. The teacher who responded with absolute consistency was regarded, however, as the servant of a role or as being dominated by a rigid and negativistic personality.[11]

Further, evidence of the direct effect that teachers have on pupil behavior has been documented by the investigation of Rosenthal into the self-fulfilling prophecy and the attitudes and expectations of others in social interaction. He found that not only do personal expectations or attitudes that others hold regarding matters that affect a person actually do influence that person's responses, self-concepts and personal expectations about himself. In other words, the expectations that a teacher held for cultural groups, attractive children, a sex, etc., could have a prophecy fulfilling affect on individuals within those groups.[12]

The influence that the teacher, as an individual, has on pupils' behavior has been investigated from numerous viewpoints by researchers

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[11]Steiner, "The Illusion of Freedom Is No Mirage," Psychology Today, 7, No. 3, August, 1973, pp. 51-55.

[12]Robert Rosenthal and Lenore Jacobson, Pygmalion in the Classroom (New York: Holt, Rinehart, and Winston), 1968.

from several disciplines. Persons like Biddle, [13] Gage[14] and others have carefully explored the field of teacher effectiveness. Cognitive perceptions have more recently gained attention from researchers who have been responding to unmet pupil needs from the culturally different and disadvantaged segments of society.

That teachers hold middle class values and perspectives has been frequently recognized or reaffirmed, but attempts to integrate public schools and their teaching staffs have dramatically demonstrated the effects of this orientation on pupils from various cultures and from minority groups. Teachers, themselves, have experienced failure, disallusionment and frustrations. Pupils were no less affected by the teachers' conflicts. The changes which have occurred in the decade following massive integration efforts have placed stresses and responsibilities on teachers to cope with increasing change, new conflicts, and the constant need for new competencies and skills. Some have been required to alter their entire classroom management concepts in order to adapt to new curriculum plans and new physical spaces. Those who could not cope with the changes or adapt their teaching styles have become failures in one sense or another.

In view of the developments just described the education profession and teacher educators have become increasingly aware of the need for continuing in-service programs for experienced teachers and for the

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[13] Bruce J. Biddle and William J. Ellena, eds, Contemporary Research on Teacher Effectiveness (New York: Holt, Rinehart, and Winston, 1964).

[14] Gage, loc. cit.

need for new approaches in the preparation of new teachers.[15] The teacher is increasingly expected to be a continuous learner in order to keep up with changes in our society which ultimately effect the schools. Adequately evaluating teacher needs is a necessary prerequisite to planning relevant in-service and pre-service education experiences for teachers. The matter of selection of specific factors which should be included in the evaluation criteria to determine teachers' needs areas is a matter that remains open for further verification through empirical research and theory testing.

Teacher educators and those in supervisory roles need to understand more about the conflicts, concerns and the problems that individual teachers encounter or feel that they have encountered. Enabling teachers to effect desirable changes in education and to make satisfactory personal adjustments to these changes is the responsibility of administrative decision makers. Therein may lie the best means of increasing the probability that extensive, costly innovative practices will be successfully implemented in all classrooms.

Further, investigation of the perceptions of problems by the individual teacher could provide teacher educators with more understanding of the teacher's behavior in the teaching role. With increased knowledge about the perceptive abilities of teachers to realistically analyze and evaluate themselves and their experiences, teacher educators could

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[15]Ben M. Harris and Wailand Bessent, In-service Education: A Guide to Better Practice (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969), pp. 3-10.

increase the effectiveness and the relevancy of pre-service and in-service experiences of all teachers, present and future. Curriculum plans could be adapted to satisfy individual pupil needs to a greater extent without distorting or weakening the curriculum through personal teacher bias and rigid perceptions. Effective assignment of teachers to compatible teaching situations could be improved. Reeducating teachers to teach in ghetto or inner-city schools has already exemplified both the need for this understanding, as well as that this type of in-service retraining is at least partially effective.

Getzels and Thelen have made reference to the power of the teacher to influence the learning environment in their model of teaching styles based on the concept of the classroom as a social system. In terms of their model, changing behavior was envisioned to involve adaptations of idiographic personality-dispositions to nomothetic role-expectations at one extreme and adaptations of nomothetic role-expectations to idiographic personality-dispositions at the other extreme. The nature of the classroom and the kind of learning that results was affected by these adaptations. Three teaching styles were conceptualized in that context. Specifically, they were the following:

1. the nomothetic style which emphasized the normative dimension of behavior with stress on the demands of the institution, the role and expectations,

2. the idiographic style which emphasized the personal dimension of behavior with stress on the requirements of individuals, personality, and needs-disposition and

3. the transactional style which was intermediate to the other two with stress on the awareness of the limits and resources of both individual and institution in the teaching-learning process and astute applications to each situation.[16]

This study attempted to utilize the model and the conceptual framework of selective interpersonal perception by Getzels and Thelen to study teachers' perceptions of problems in relation to their attitudes. In their words, "It is through this experience of recognizing and dealing with complexity, conflict, and change in the classroom that we can educate children to take their places as creative and autonomous participants in the other social systems that constitute the larger social order."[17]

Problems are considered to be dislocation in goals, expectations, potentialities, needs, and intentions, many of which are inevitable in a dynamic, disequilibrium which exists in a complex social system found in any school classroom. Essential to this capability, suggested in Getzels' model, to recognize conflicts and to deal with problems in teaching was a clearer understanding of teachers' perceptual cognition of reality in their individual classroom situations. Recognition of subconscious expectations created by particular attitudes could result in improved ability to manage with realistic acumen the conflicts, frustrations and threatening situations caused by change. A successful conflict manager in education was defined by Bailey as one who was aware of the problems

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[16]Ronald Hyman, ed., Teaching: Vantage Points for Study (Philadelphia: J. B. Lippincott Company, 1968), pp. 225-239.

[17]Ibid., p. 239

facing the young, the oppressed, and the sensitive.[18] First, teachers must be more fully aware of the real nature of their own problems.

In summary there were four basic reasons for conducting this study. They were the following:

1. Teachers needed to be assisted in their role as agents of change by improving their capabilities in realistically recognizing and dealing with conflicts in the implementation of new programs and ideas. Since it is in relation to situations perceived as problems that significant learning occurs most readily,[19] it becomes imperative that teachers' energies and concerns be spent on those situations that will provide the desired significant learning for themselves as well as for their pupils.

2. Increased demands, based on the need for new skills, new knowledge and new attitudes which were increasingly expected of teachers, had created greater emphasis on in-service education for teachers. These programs needed to be made more relevant and appropriate to the individual learning needs of the classroom teachers.

3. Teaching behavior was known to influence pupil behavior. It was the responsibility of educational leaders to take action to insure that the individual child is positively influenced by his interaction with teachers. To do so required a better understanding and control of the teaching acts which made up the total teaching behavior for any

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[18]Stephen K. Bailey, "Preparing Educational Administrators for Conflict Resolution," (paper presented at American Education Research Association Annual Meeting, New York: Educational Resource Information Center, ERIC Document ED, 048.646, February, 1971).

[19]Carl R. Rogers, "Significant Learning in Therapy and in Education," Teaching Vantage Points for Study, ed. Ronald Hyman (Philadelphia: J. B. Lippincott Company, 1968), p. 157.

individual teacher. The underlying motivation for behavior was complex, but not impossible to identify when antecedent conditions were determined that could direct decision making in teaching behavior.

4. The surge of heterogeneity due to increased population mobility to new communities and classrooms has resulted in an inevitable disequilibrium in the classroom social systems as widely varied cultural backgrounds, attitudes, value systems and role expectations have been encountered. Increased understanding of personal bias and values was essential if teachers were to deal effectively with the conflicts and frustrations that occurred in and with their classes. Teachers needed to recognize personal weaknesses in their own perceptions of conditions and situations that might have inhibited their effectiveness in the teaching-learning process.

The foregoing conclusions indicated a need for information that would contribute to better understanding of the antecedents to teachers' concerns, their decisions and their subsequent classroom behaviors. The relationship of attitudes, which control expectations, to the perceived problems of teachers may provide insights for enhancing teachers' capabilities for realistic problem assessment thereby freeing their energies to be directed perhaps toward more valuable educational endeavors.

II. DEFINITION OF TERMS

Attitude. An enduring, learned predisposition to behave in a consistent way toward a given class of objects; a persistent mental and/or neural state of readiness to react to a certain object or class of objects, not as they are, but as they are conceived to be.

Behavior. A response or responses collectively.

Behaviorial Determinants of Perception. Those organismic factors or functions that coact with the local functions in the sense organ in determining perception. They (i.e., feelings, prior experience, etc.). . . affect perception by relative dominance, accentuation fixation, and by determining selection among alternative perceptual objects.

Cognitive Structure. The way the individual sees the physical and social worlds, including all his facts, concepts, beliefs, and expectations and the patterns of their interactions.

Cognitive Theory. An interpretation of the facts of learning that, more freely than other theories (of learning), postulates central brain processes an intermediary, that what is learned is a cognitive structure rather than a response, and (generally) that learning comes as a result of a restructuring of the individual's way of perceiving.

Idiographic Style. The orientation which emphasizes the idiographic dimension of behavior and accordingly places stress on the requirements of the individual, the personality, and the need disposition.

Nomothetic Style. The orientation which emphasizes normative dimensions of behavior and accordingly places stress on the requirements of the institution, the role and the expectation.

Opinion. That which is thus believed, stated in words for oneself. Often used interchangeable with attitudes. However, opinions are ostensibly intellectual and attitudes are ostensibly valuative.

Perception. An event in the person or organism, primarily controlled by the excitation of sensory receptors, yet also influenced

by other factors of a kind that can be shown to have originated in the life history of the organism.

Role. The function played by an individual in a group.

Transitive Style. An orientation intermediate to idiographic and nomothetic styles.

III. HYPOTHESES

The following null hypotheses were projected to give direction to the statistical treatment of the data.

1. There is no significant difference between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten Units perceive in either the nomothetic or the idiographic dimensions of behavior when compared with their attitudes as reflected in their scores on the Minnesota Teachers' Attitude Inventory.

2. There is no significant difference between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten Units perceive in either the nomothetic or the idiographic dimensions of behavior when compared with their ages when classified by 20 to 35 years, 36 to 50 years and 51 to 65 years of age.

3. There is no significant difference between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten Units perceive in either the nomothetic or the idiographic dimensions of behavior when compared with their educational preparation in categories of undergraduate majors in elementary teaching with kindergarten endorsement and secondary subject preparation with elementary and kindergarten endorsement.

4. There is no significant difference between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten Units perceive in either the nomothetic or the idiographic dimensions of behavior when compared with their teaching experience in categories of less than one year of experience, one or more years of kindergarten experience, one or more years of elementary experience only, one or more years of secondary experience combined with these levels of experience.

The hypotheses were tested at the .05 level of statistical significance as the level of rejection of the four null hypotheses.

IV. PROCEDURES

Design of the Study

This study was designed to compare the perception of problems in the nomothetic and the idiographic dimensions by teachers in the 100 Kentucky Pilot Kindergarten Programs to their attitudes and certain personal-social factors unique to each teacher. The ultimate aim of this study was to provide a basis for a better understanding of the effect of certain variables antecedent to the teacher's perception of problems in their teaching experiences. Personal-social variables, specifically, were those of the teachers' attitudes as reflected in their scores on the Minnesota Teachers' Attitude Inventory, the teachers' ages, their educational preparation, and their experience background.

In the field study, such as this investigation, the design was directed toward the discovery of significant variables in the field situation. In implementing a new statewide pilot program in publicly supported kindergartens, this research attempted to define the relationship

between the kinds of problems perceived by the teachers in the 100 pilot units and certain personal-social variables concerning those same teachers. The study also attempted to contribute to further research in the study regarding the effectiveness of teachers and their influence when new curriculum plans are implemented.

The Sample

The sample that was used in this study was all of the teachers in the 100 pilot kindergarten units who implemented pilot programs throughout Kentucky in the 1973-74 school year under the established guidelines common to all programs. The programs were selected from among applicants who agreed to adhere to these guidelines, one of which was a willingness to cooperate in research and evaluation.

There were certain limiting factors considered in this particular population and sample of programs. There was considerable freedom permitted in the selection of methodology, strategies, and the selection of precise program content and materials within the framework of a philosophical basis with specified programs objectives by the statewide advisory committee. The latitude of program differences were investigated in companion studies conducted by the Bureau of School Services at the University of Kentucky.

Collection of the Data

There were five basic kinds of data collected with which to test the hypotheses which gave direction to this investigation. For each teacher in the sample the following data were collected.

1. a preliminary listing of expected problems which the teacher

defined and rank ordered according to their importance. A Q-sort of problems, taken from these problems previously anticipated, was categorized by the teacher according to that teacher's perceptions of the extent to which they encountered and dealt with each problem situation.

2. teaching attitude factors determined by the teachers' scores on the Minnesota Teachers' Attitude Inventory (MTAI),

3. the age on the last birthday,

4. the undergraduate majors and certification records, and

5. the teaching experience record.

The problems Q-sort was a selection of structured problem statements taken from the problems most frequently listed by the teachers in the anticipated problems submitted at the beginning of the year. A problem analysis classified the kindergarten teachers' concerns which were characteristic of the two dimensions of social behavior (nomothetic and idiographic behaviors). The Q-sort was performed by each of the teachers in the 100 pilot units during April of 1974.

The attitude data were in the form of scores on the Minnesota Teachers' Attitude Inventory which described certain attitudes about teaching children. The MTAI forms were administered during September of 1973. Anticipated problems were done at the same time. The age data, the certification data, and the experience data were collected from the official records at the Kentucky Department of Education in Frankfort, Kentucky.

Data Treatment

The data were assigned to each teacher in the following categories.

1. Q-sort scores of problems as perceived by each teacher,

2. attitude scores for each teacher,

3. age records for each teacher,

4. educational preparation or certification records for each teacher, and

5. teaching experience background information for each teacher.

The data were examined for the total group to determine the existence of relationships between the kinds of problems perceived by the teachers in terms of the nomothetic and idiographic dimensions (the dependent variable) and attitudes on the MTAI, the age, the educational preparation and the teaching experience (the independent variables).

The basic statistical techniques used to examine the difference between the problems perceived and the personal-social variable was an analysis of variance using the factorial structured Q-sort design appropriate for the number of variables in each of the hypotheses. In dealing with hypothesis 1, which stated that there was no significant relationship between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten Units perceived in either the nomothetic or the idiographic dimensions of social behavior when compared with their attitudes as reflected in their scores on the MTAI, an analysis of variance was computed between the variables in each of the twelve cells of the structured Q-sort design. This process was repeated to establish the relationship between the problem perception variables and each of the personal-social variables.

Organization of the Remainder of the Study

Chapter II reviews the literature relative to the problem. In

Chapter III the basic data relative to the problem perception variables and the personal-social variables is presented. The relationship between the variables is presented as each is stated in the hypotheses with a discussion of the meaning of the data for each. Chapter IV includes the summary, conclusions and recommendations for further study.

CHAPTER II

REVIEW OF THE LITERATURE

The literature providing available research and empirical evidence supporting this study was selected from a multitude of materials available in each topic represented. Though not exhaustive, this review encompassed studies which were selected as most representative of numerous studies of a similar nature and those that were most closely to the kinds of problems perceived by teachers and the effectiveness of those teachers in evoking change in pupil behavior. Thus, the literature was reviewed in the areas of (1) cognitive-perceptual psychology, (2) attitude studies, (3) Q-methodology, and (4) teacher effectiveness studies.

I. COGNITIVE PERCEPTUAL PSYCHOLOGY

The role of perception in learning and personality development has received increased attention from those theorists concerned with cognitive psychology. In this realm of reasoning, perception was considered to be more than looking; it was also seeing; more than listening, it was also hearing; and more than touching, it was also feeling. The organism learned through the activation of sensory receptors which interacted with the internal and external environment or the perceptual field unique to each individual. An individual learned to estimate or predict correct categories and to confirm this information categorization later. It was this concept of information processing or categorizing and

confirmation that formed the basis of most perceptual learning theories which attempted to account for the unique learning styles and the development of individual personality. Perceptual psychologists believed that all behavior was a product of the perceptual field of the behavior at the moment of action.[20]

Expectancy Theory

This study utilized the cognitive perception theory by Jerome Bruner[21] to determine the relationship of certain antecedents to the perception of problems by a pilot group of teachers who were involved in establishing new programs at the kindergarten level. This social theory was referred to as the expectancy theory or the hypothesis theory due to Bruner's belief that perception did not arise from a neutral condition. Instead, perception, Bruner believed, resulted from antecedent conditions which formed patterns of expectancy or a hypothesis that directs perception. Bruner had conceptualized that there were antecedents to perception which influenced the perceiver and his consequent responses to different situations. The phenomena of unique responses to similar situations has been observed in groups of individuals in all societies, despite commonalities among similar groups. This phenomena has constituted the basis

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[20]Arthur W. Combs, "A Perceptual View of the Adequate Personality," Perceiving, Behaving, Becoming, Association for Supervision and Curriculum Development Yearbook (Washington: National Education Association, 1962), pp. 50-65.

[21]Jerome Bruner, "Personality, Dynamics and Perceiving," Perception, An Approach to Personality, eds. R. R. Blake and G. O. Ramsey (New York: Ronald Press), pp. 121-147.

for many personality tests as psychologists have attempted to explain individual differences.

The expectancy theory provided some explanation for personal response situations. This theory appeared to have evolved from earlier studies with a collaborator, Leo Postman, with whom Bruner authored the directive state theory, which also attempted to explain this set phenomena. Directive state theory maintained that perception was the outcome of two types of conditions--one, a structured condition which accounted for the state of the organization and the stimulus; the other, a behavioral condition which included processes characterized by values, attitudes, needs, etc.[22]

In the expectancy theory the accessibility of category responses reflected two sets of factors identified as a need and an interest state. The extent or intensity of the need or interest states increased the accessibility of certain categories of objects that related to the fulfillment of these states or, in a manner consonant with achieving a desired goal, furthering need-induced alertness and event-matching expectancy. Bruner contended that the stronger the expectancy or hypothesis the more likely would be the activation of that expectancy in any given situation. Further, less stimulus or cueing would be necessary for a strong pattern of antecedents or hypotheses to be activated.[23] Experienced school administrators readily recognized that some teachers were exceedingly

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[22]Jerome Bruner and Leo Postman, "Perception, Cognition and Behavior," Journal of Personality, Vol. 18, September, 1949, pp. 14-31.

[21]Bruner, op. cit., p. 126.

sensitive to certain pupil behaviors while others on the staff hardly noticed the same behavior in their classes or perceived it in an entirely different fashion. Freeing teachers to facilitate learning could be conditioned by the necessity to free perception from internal expectancies that inhibit a teacher's personal interaction with the learner.[24]

Bruner's expectancy theory explained perception as a cycle of three steps, beginning with an expectancy or hypothesis which indicated that perception occurred in a "tuned organism." Thus, one was always prepared for perceiving as a result of the arousal of central cognitive and motivational processes by preceding environmental states.

The second step in the perceiving cycle, as seen by Bruner, involved the stimuls or environmental input of information. This input could be strong or weak, simple or complex, pleasant or unpleasant, easy or difficult, choice or forced, perhaps even ill defined.

The third step in the cycle was a confirming process whereby the input information was determined to confirm expectancies in varying degrees or to fail confirmation altogether. The subsequent incongruence of cues with initial hypotheses resulted in consequent different hypotheses. In theory Bruner inferred the existence of a hypothesis from the presence of certain antecedent and consequent events which served to reduce the necessary threshold for perception to follow familiar or expected cues.[25]

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[24]Don E. Hamachek, ed., The Self in Growth Teaching and Learning (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965).

[25]Bruner, in Blake, loc. cit., pp. 124-125.

Bruner contended that the uniqueness of individual responses was related to differing patterns of antecedents that direct each individual's perception. Such responses (tuned to expect certain conditions to exist when a cue occured) could be experienced readily when camouflaged objects were pointed out and, once viewed, could no longer be concealed from the viewer. Bruner made reference to the far more common social expectancies to which a person frequently must respond, such as environmental attributes of personal warmth or the threatening or need-gratifying qualities of an object.

These hypotheses were cumulative and could interact with congitive data banks or with established habit family hierarchy. A basic property of any hypothesis was its "strength." Three theorems were derived from the concept of "strength" as follows:

1. The stronger a hypothesis, the greater the likelihood of arousal in a given situation.

2. The greater the strength of a hypothesis, the less the amount of appropriate information necessary to confirm it.

3. The greater the strength of a hypothesis the more the amount of inappropriate or contradictory information necessary to confirm it.

Five determinants of hypothesis strength were considered to be the frequency of past confirmation; a monopoly or small number of alternate hypotheses available to an individual; cognitive consequences; motivational consequences and social consequences. Bruner cited laboratory

studies which generally served to confirm these determinants of hypothesis strength.[26]

Selectivity of Attention

A study by Marvin Sontag seemed also to verify the effect of some of these determinants of hypothesis strength.[27] Persons (teachers) seemed to narrow the selectivity of attention more-or-less to those things that were somehow essential to the enterprizes in which they were engaged. Sontag, who questioned the validity of classroom observation assessment procedures, utilized the influence of internal personality factors on social perception in an investigation of the role of educational attitudes in the perception of appropriate teacher behaviors. Using Kerlinger's two relatively orthogonal factors "progressivism" and "traditionalism" which were found to underlie attitudes toward education, Sontag found factors in the perception of teacher behavior that were closely related to the attitude factors of "progressivism" and "traditionalism."

An 80-item Q-sort was used by Sontag to measure perceptions of desirable teacher behaviors in the areas of teaching subject matter, interpersonal relations, authority, discipline, and normative social. The factors emerging from the perceived desirable teaching behaviors among elementary teachers were described as those of concern for students; structure and subject matter; stimulating teaching and self-control in teaching. Among the secondary teachers, factors emerging were those of

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[26]Bruner, in Blake, loc. cit., pp. 126-145.

[27]Marvin Sontage, "Attitudes Toward Education and Perception of Teacher Behaviors," American Educational Research Journal, 5, No. 3 (May, 1967), pp. 384-399.

general subject matter presentation, concern for students, structure and subject matter, and a norms and rules factor. Teachers in the two groups differed in their perception of the most desirable teaching behavior, but there were also some parallel factors between the groups.

Sontag's hypothesis was substantiated. The two major persons factors, progressivism and traditionalism, that underlie attitudes toward education were found to be significantly related to persons factors derived by the Q methodology from the perceptions of teacher behavior.[28] Thus, Sontag's study seemed to verify the thesis that a person narrows the selectivity of attention more or less to those things that are somehow essential to the enterprises in which one is engaged.[29]

Hypothesizing from Perceptual Cues

Selectivity of attending to perceptual cues may influence the different styles or strategies individuals employ to cope with difficulties. Attending to significant cues apparently extends to the perception of situations as threatening or difficult. Experiments have shown for example, that individuals eventually perceive others as disliking them whom they themselves first disliked. In other words one expects hostility from disliked persons.[30]

The complexity of the classroom social system suggested further implications that could be drawn from the influence of selectivity of

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[28]Sontag, loc. cit.

[29]Bruner, op. cit., p. 122.

[30]Hamachek, op. cit.

attending to or hypothesizing from perceptual cues. Where speed was required in perception, the likelihood of erroneous perception increased. Stress and social pressure served to reduce the subtlety of the registration process. Studies have also shown that the larger the number of cueing alternatives, the more difficult was the recognition of any one cue. Under stress, as in hunger before a meal, perceptual distortions increased then diminished after one was fed. McClelland and Atkinson found this distortion severe enough in some subjects that food images were actually perceived on a blank screen when the subjects were very hungry.[31]

It was suggested that it was not necessarily the amount of need, but rather the way in which a person learned to handle this need that determined the manner in which motivation and cognitive selectivity interacted.[32] Cultural influences were cited that actually presented a blocking phenomena or perceptual defense toward recognition of unacceptable classes of materials. Environmental cues indicating social causation, such as ready recognition of Jewish faces, have been investigated in this response of the "tuned organism."

Rosenthal's studies of teacher expectancies and their influence on their pupils dealt effectively with these conditions of perceptual distortions.[33] Certain cues and conditions were shown to influence the teachers' perceptions of the child's potential which caused certain

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[31]Hamachek, ibid., p. 126.

[32]Bruner, op. cit., p. 141.

[33]Robert Rosenthal and Lenore Jacobson, Pygmalion in the Classroom (New York: Holt, Rinehart and Winston, Inc., 1968).

projected behavior as perceived by the child. This in turn influenced the child's motivation and self-image. These fascinating studies have been challenged on the basis of methodology, but have not refuted on the basis of theory.[34] The Hawthorne studies may have closely approximated the same effects. Medical advances and new drug introductions have dramatically illustrated the halo effect of persons responding to perceived expectations held by others, particularly significant others. In medical realsm this has been called the placebo effect. For example, the human response to significant others was more pronounced than response to groups or other individuals; however, self-identity was influenced in many ways by one's perception of another's expectations or responses.

Sarbin suggested that role perception could be thought of as a sequence of behaviors in which the perceptual response was the first part of a social act.[35] The silent naming or locating position was the other. Constant changes in social position of self and others required steady attention to and organization of cues. Varying intensity of social needs influenced social behaviors, but the restraining "situation sets" were also operative as individuals perceived and decided how to respond. Thus, perception involved more than the physical reception of environmental stimuli as social experiences and settings also influenced the perceptual response.

Perception was considered in Bartley's terms as the organism's

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[34] Rosenthal, ibid.

[35] T. R. Sarbin, "Role Theory," in Handbook of Social Psychology, (Cambridge: Addison Wesley Publishing Company, 1954), Vol. I, pp.229-230.

immediate response to energistic impingements on sense organs.[36] This approach allowed experiential phenomena as well as motor phenomena to be considered perceptual. A person's perceptions were thus directly or indirectly shaped by the characteristics of the environmental field stimulus, by one's tendency to give meaning to stimuli, by one's personal characteristics, and by one's social frame of reference.[37]

In the following section the personal factors influencing perception were examined in the research studies concerned with attitudes, particularly teacher attitudes. The MTAI was considered, also, inasmuch as this instrument yielded the attitude dimensions used in this study.

II. ATTITUDES OF TEACHERS

Attitudes have gained increasingly greater attention in teaching behavior research in the past several decades. These studies tended to support the view that the attitudes held by teachers toward young learners significantly influenced their interaction with others as well as their overall classroom behavior.[38] Rogers gave new meaning to teaching. He felt that the facilitation of learning rested upon certain attitudinal qualities which existed in the personal relationship between the

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[36] S. Howard Bartley, Principles of Perception (New York: Harper, 1958).

[37] D. W. Johnson, Social Psychology of Education (New York: Rinehart and Winston, 1970.

[38] M. L. Silberman, "Behavioral Expression of Teachers' Attitudes Toward Elementary School Students," Journal of Educational Psychology, 60: 40, 407 (1969).

facilitator and the learner.[39]

The Attitudes which Facilitate Learning

It was difficult to consider teaching in the evolving roles being forced on education by technological, population, and economic factors without considering Carl Rogers' Learning Theory and his newer concept of the teaching role. Rogers spoke for the emerging new role when he said, "I see the facilitation of learning as the aim of education." He supported this viewpoint with his explanation that the only man who was educated was the man who had learned how to learn; the man who had learned how to adapt and change; the man who had realized that no knowledge is secure, that only the process of seeking knowledge gives a basis for security.[40]

Robers considered changingness to be a certainty which requires future reliance on the process of learning rather than upon static knowledge, a viable goal, indeed, the only goal that makes any sense for education in a modern world. Then, teachers needed to become facilitators of learning since the facilitation of significant learning rested upon certain attitudinal qualities which existed in the personal relationship between the facilitator and the learner.

The attitudes which facilitated learning or established a climate for self-initiated experiential learning were the following:

1. Realness (about self) was an attitude that lead one to avoid

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[39]Carl Rogers, Freedom to Learn (Ohio: Charles E. Merrill Publishing Co., 1969).

[40]Rogers, loc. cit., Freedom to Learn.

role playing, to not deny self, to feel aware, to have feelings readily available for consideration and to avoid judging others.

2. Praising, accept and trust were attitudes that allowed more possessive caring for others.

3. Empathetic understanding was an attitude which allowed one to perceive situations from another's viewpoint.[41]

Rogers stressed the necessity for teachers to be close to their own feelings, not disguising or attributing these feelings to others, but being real about themselves. He felt a basic trust in the human organism and confidence in its potential to be a basic necessity in order for teachers to have facilitative attitudes about their role.[42] He believed that the real self could be realized or fulfilled in healthy relations with others.

Rogers' Self Theory

Rogers' personality theory, a well defined self-theory, held particular meaning for this study, particularly since some theorems were closely related to Bruner's expectancy theory. Teachers in the busy classroom situation were especially influenced by certain aspects of "self" development as described by Rogers in the following theorems.[43]

1. Every individual exists in a continually changing world of experience of which he is the center.

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[41]Carl Rogers, Client Centered Therapy (Boston: Houghton Mifflin Company, 1951), pp. 483-522.

[42]Rogers, Freedom to Learn, loc. cit.

[43]Carl Rogers, Client Centered Therapy, op. cit.

2. The organization reacts to the field as it is experienced and perceived . . . Subjective reality determines how he behaves.

3. The organization reacts as an organized whole to this phenomenal field.

4. The organism has one basic tendency and striving--to actualize, maintain, and enhance the experiencing organism.

5. Behavior is basically the goal-directed attempt of the organism to satisfy its needs as experienced, in the field as perceived.

6. The best vantage point for understanding behavior is from the internal frame of reference of the individual himself.

7. As a result of interaction with the environment, and particularly as a result of an evaluational interaction with others, the structure of self is formed . . .

8. The values attached to experiences, and the values which are a part of the self-structure, in some instances are values experienced directly by the organism, and in some instances are values introjected or taken over from others, but perceived in distorted fashion, as if they had been experienced directly.

9. Most of the ways of behaving which are adopted by the organism are those which are consistent with the concept of the self.

10. Psychological adjustment exists when the concept of the self is such that all the sensory and visceral experiences of the organism are, or may be assimilated on a symbolic level into a consistent relationship with the concept of self.

11. Any experience which is inconsistent with the organization or structure of self may be perceived as a threat, and the more of these

perceptions there are, the more rigidly the self-structure is organized to maintain itself.

12. When the individual perceives and accepts into one consistent and integrated system all his sensory and visceral experiences, then he is necessarily more understanding of others, and is more accepting of others as spearate individuals.

13. As the individual perceives and accepts into his self-structure more of his organic experiences, he finds that he is replacing his present value system--based so largely upon introjections which have been distortedly symbolized--with a continuing valuing process.[44]

Newer works by Rogers suggest three new unifying concepts which are (1) the need for positive regard, (2) the need for self-regard, and (3) conditions of worth. Rogers has supported his ideas with considerable empirical data.

Teachers' attitudes of openness. Rogers' concern for facilitative attitudes among teachers was supported by numerous studies regarding "openness" in teaching, but MacDonald and Zaret's comprehensive study was most notable in demonstrating this widened realm of learning among the children of "open" teachers. These pupils tended to be productive learners, whereas those of teachers with more "closed" behaviors were reproductive learners.[45]

David Aspey found that third graders in classes with teachers who

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[44]Calvin S. Hall and G. Lindsey, Theories of Personality (New York: John Wiley and Sons, Inc., 1959).

[45]Rogers, Freedom to Learn, op. cit.

demonstrated higher levels of the facilitative attitudes listed by Rogers showed significantly greater gains in reading achievement than pupils in classes where the teachers demonstrated less of these attitudes.[46]

Another study of the effects of perceived teacher attitudes on student achievement was done by William Mayberry.[47] Positive attitudes exhibited by the teacher toward the material being taught seemed to exert a more significant influence on pupil achievement than attitudes exhibited by the teacher toward students as individuals.

In a study cited by Rogers, which supported Rogers' concept of the facilitative attitudes, Barrett and Lennard[48] investigated client perceptions of their relationships with their theapists when compared with the change (or learning) exhibited by the clients. The client-therapist relationship was examined both from the viewpoint of the clients as well as the perceptions of the therapists. Among those clients who perceived more of the facilitative attitudes in their therapists, the most therapeutic change was evident. It was further discovered that the best predictor of the ultimate client growth or accomplishment was related significantly to the client's perception of the role relationship with the therapist.

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[46]David N. Aspey, "A Study of Three Facilitative Conditions and Their Relationship to the Achievement of Third Grade Students" (unpublished Doctoral dissertation, University of Kentucky, 1965).

[47]William E. Mayberry, "The Effects of Perceived Teacher Attitudes on Student Achievement" (unpublished Ph.D. dissertation, University of Illinois, Educational Research Information Center, Document ED050013, 1971).

[48]Rogers, Freedom to Learn, loc. cit.

A similar study by Emmerling was also based on Rogers' Self Theory and his concept of perceptions of facilitating role relationships influencing learning.[49] Emmerling found that when analyzing the perceptions of problems selected by teachers who Q-sorted a list of selected concerns statements, two groups emerged. One group was found to be characterized by openness or positive orientation to problem identification. The other group was designated as closed or negatively orientated to identifying problems. Emmerling then administered the Barrett-Lennard Relationship Inventory to the pupils of these same teachers. Pupils of the open group of teachers perceived their teachers as more real, more empathetic, and more acceptant than the latter or closed group of teachers. Pupils of the closed group of teachers perceived their teacher's relationships with their pupils to be lacking in trust, genuineness or empathetic understanding.

A later study by Bills extended Emmerling's findings by further categorizing the problem orientation groups into effective and ineffective teachers as rated by their superiors. The students then rated the two groups of teachers just as in Emmerling's study. The superiority of the group rated "effective" and "open" was substantiated significantly by the pupils' perceptions of role relationships in every facilitative attitude measured by the instrument.[50]

The open style of teaching which results from teachers'

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[49]Frank Emmerling, "A Study of the Relationship Between Personality Characteristics and Pupil Perception of These Teachers" Ed.D. dissertation, Auburn University (Educational Research Information Center, No. ED6103002, 1961), p. 199.

[50]Rogers, Freedom to Learn, op. cit., p. 198.

facilitative attitudes have been found also to positively and significantly affect pupil learning. In a study with pre-school children, Sacks found that warmer treatment of the children in one group resulted in a net profit of nearly 10 IQ points relative to indifferent treatment of another group.[51]

Teacher attitudes toward children who are different. Teachers' attitudes toward ethnic groups were studied by Gustafson and Owens. Children's perceptions of themselves and of their teachers' feelings toward them were correlated with teacher perceptions of the children's self-concepts and with school achievement. The results were inconsistent for all grade levels; however, there were significant differences between the ethnic categories in self-esteem and academic performance with consistently lower correlation scores for the Mexican Americans between self-perception and teacher perceptions of students.[52] Mexican American pupils also exhibited progressively lower achievement as the grade level advanced. Teacher perception of pupil achievement in earlier grades indicated lower expectations for this group to suggest the possibility of some degree of the "Pygmalian Effect" claimed by Rosenthal and mentioned previously. Attitudes toward "different" children have been studied enough to indicate the vast complexity of bias and prejudice to be like

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[51]Eleanor L. Sacks, "Intelligence Scores as a Function of Experimentally Established Relationships Between Child and Examiner," Journal of Abnormal and Social Psychology, Vol. 47 (1952), pp. 354-358.

[52]Richard A. Gustafson and Thomas Owens, "Children's Perceptions of Themselves and Their Teacher's Feeling Toward Them Related to Actual Teacher Perception and School Achievement" (Educational Research Information Center, ERIC Document, ED05848, 1971).

an iceberg, revealing a new mass as the surfaced feelings melt away.

In a demonstration study of high potential-low achieving pupils, simple but genuine acceptance by teachers was found to be the best technique to produce desired behavior changes in pupils. Teachers of these pupils tended to rely on friendly encouragement when informed of pupils' background and potential. The attitudes of the teachers who relied on this method became antagonistic when this approach failed to produce desired behavior changes. Pupils were consequently judged "lazy." Where attitudes toward tasks differed sharply between teachers and pupils the teachers' attitudes toward these pupils tended to be negative. Where antagonism existed on both sides, the scholastic progress of pupils was diminished. Pupil conflicts with the school resulted along with negative pupil attitudes toward education, discipline problems and poor adjustment to school rules.[53]

Teacher Expectations

A later study by Rosenthal and his associates made a stronger appeal for seriously considering the consequences of teacher expectancies. A series of experiments testing the self-fulfilling prophecies were cited ranging from experiments with rats to controlled experiments with all ages of people which led to the original controversial studies with "intellectual bloomers" in 1968. Rosenthal produced numerous instances of significant changes in the direction of another significant person's

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[53]Glen Smith, A Demonstration Study to Determine the Effect of Academic Performance of Giving High School Teachers Background Information on High Potential-Low Achieving Students, Michigan Department of Education, n.d., p.3.

expectations to support the concept of the self-fulfilling prophecy. A four factor theory was offered to explain the influence that produces the "Pygmalion Effect." Rosenthal proposed,

> People who have been led to expect good things from their students . . . appear to:
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> - create a warmer social emotional mood around their special students (climate),
> - give more feedback to those students about their performance (feedback),
> - teach more material and more difficult material to their special students (input), and
> - give their special students more opportunities to respond and question (output).

Studies were cited which generally supported each factor above. These studies indicated that a teacher's belief and resulting attitudes tempered both their overt as well as their covert behavior toward children. These behaviors ranged from exhibiting more warmth and acceptance to allowing more response time on questions to "brighter potential" pupils. In the latter case, teachers expressed surprise when made aware of their reaction and when more time was allowed for "slower" pupils they received increased responsiveness.[54]

Teachers' attitudes toward unexpected achievement. Analysis of teachers' liking for students in control groups who achieve unexpectedly well led to the discovery that teachers actually looked upon their behavior and personality as undesirable. Subsequent experiments confirmed this finding that the more children disrupted the teachers' expectation

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[54]Robert Rosenthal, "The Pygmalion Effect Lives," Psychology Today (September, 1973), pp. 56-63.

by increased achievement the less well adjusted, less interesting and less affectionate the teachers thought them.

Lower Class viewed negatively. Leacock found that teachers were much less favorable to the lower class children than they were to the middle class children. Further, Leacock found that the IQ scores of middle class children were clearly related to positive attitudes of their teachers, whereas, the relationship was reversed for lower class pupils with high IQ scores. They tended to have teachers who viewed them negatively. Apparently, race was no issue in this study, but rather an issue of cognitive disonance or internal conflict resulted when the teacher's expectations were disturbed.[55]

Such studies seemed to indicate a strong relationship between teacher expectations and consequent behavior of the teacher as well as the pupil's behavior. However, the perceptions of the teacher who anticipates problems in teaching children also appeared to be clearly related to subsequent teacher behavior and the consequent pupil learning.

Naturalistic conditions favor greater teacher expectancy influence. Of the critics, Mendels and Flanders were among those who attempted to duplicate the original Rosenthal study and found positive, but not highly significicant results. It was their conclusion that more teacher expectancy influence might result from naturalistic conditions such as those found by Seaver who found naturalistically induced teacher expectancies did influence pupil achievement in grade one. The plausibility that such

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[55]Rosenthal, loc. cit.

naturalistic inputs as (a) communications from other teachers, parents, school administrators, (b) cumulative records, or (c) pupil characteristics (sex, physical attractiveness, level of motivation, socio-economic status) were a few of the factors which might lead to teacher expectancies.[56]

Bruner's hypothesis theory suggested that the naturalistic inputs were external stimuli that impinged on internal cognitive structures of expectancies to produce an "if this - then that" effect. In this respect, the teacher expectancies' studies were concerned with consequent teacher behaviors which were closely related to attitudes held prior to the naturalistic inputs. The MTAI was used in this study to assess the attitudes which were antecedent to these naturalistic inputs which provided cues for perception.

The Minnesota Teachers' Attitude Inventory

The MTAI was designed to measure those attitudes of a teacher which predicted how well he would get along with pupils in interpersonal relationships and directly how well satisfied he would be with teaching as a career. It was used primarily for selection of students, for teacher training and selection of teachers for teaching positions.[57]

Descriptors for high scoring teachers. It was assumed that a

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[56]Glen E. Mendels and James P. Flanders, "Teachers' Expectancies and Pupil Performance," American Educational Research Journal, 10:3 (Summer, 1973), pp. 203-212.

[57]Walter Cook, C. H. Leeds and Robert Callis, Minnesota Teachers' Attitude Inventory Manual (New York: The Psychological Corporation, 1953).

teacher ranking at the high end of the scale would be able to maintain a desirable relationship with pupils through mutual empathy and warm regard. The teacher would enjoy teaching children, rarely needing to administer discipline. Such a teacher would maintain a permissive atmosphere of freedom to think, act and verbally express one's self with mutual regard for feelings, rights and abilities of others. Inadequacies would be openly acknowledged without scolding or ridicule. Abilities would be a balance of humor, justice and honesty. Such a teacher would promote solidarity in class goals and endeavors.

Descriptors for low scoring teachers. At the other extreme end of the scale the teacher with very low scores would try to dominate children, creating an atmosphere of tension, fear, and submission (or he might be ineffective, nervous, and fearful). This teacher would be frustrated, even threatened by a class with restlessness, inattentiveness, disrespectfulness, and other disciplinary problems. The school work would be unpleasant to teacher and pupils alike. Weaknesses would be guarded and concealed from others to avoid ridicule, sarcasm, and sharp tempered remarks which would be common. Such a teacher would tend to think of his own status and the correctness of his position in teaching matters. This teacher would be more concerned with the essential subject matter to be covered, rather than in terms of pupil needs, or the pupils feelings, knowledge or skills.

Validation of instrument. Revised Form A in this study was revised to not be significantly related to teaching experience. The A and B forms were validated in Pennsylvania and Ohio by having principals

select teachers whom they judged to be like the descriptions for persons at either end of the attitude scale. Both A and B forms were given to the teachers over a period of time and the results compared for group discrimination. The validity coefficient was .60 when the three outside criteria were combined with multiple regression weighting. The highest criterion, the experts' rating of teachers, had a correlation with the teachers' attitude scores of .49. The next, pupils' ratings, .45 and the third and lowest was the principals' rating, .43. All were statistically significant at the .01 level. Subsequent validating studies followed this pattern with scoring and item improvements which increased the validity coefficients for Form A for the same criteria to a correlation of .63.[58]

Factor content of MTAI. Several studies have been devised to factor analyze the MTAI to prove that the instrument effectively measures more than one unitary trait. A computerized study was devised to handle the volume of data created with the 150 MTAI items by Yee and Fruchter to overcome the procedural limitation cited for previous studies.[59] This study also provided factorial results for application to experienced teachers. Items with .42 factor loadings were included in the interpretation from the varimax rotated solutions to yield five factors accounting for 25 percent of the total variance of the 150 items.

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[58]Cook, ibid.

[59]Albert H. Yee and Benjamin Fruchter, "Factor Content of the MTAI," American Educational Research Journal, 8, No. 1, (January, 1971) pp. 119-113.

Factor one was labeled "children's irresponsible tendencies and lack of self-discipline." Items loading on this factor were negative, authoritative and reproachful evaluations of children. Subordination of childish inclinations and unquestioning obedience to adult superiors was indicative of the tone of the thirteen statements common to factor one.

Factor two was labeled "teachers' and pupils' rights" with fifteen items in common. These items indicated a negative relationship between teachers' and pupils' interest. These relationships were not mutually interactive but would be directed from the teacher to the pupil according to these statements.

Factor three referred to attitudes toward appropriate methods of controlling children's behavior and was labeled "rigidity and severity in handling pupils." Nine items from the MTAI loaded on this factor.

Factors four and five had only seven and six items, respectively. Factor four was called "pupils acquiescence to the teacher" and implied that children do and should acquiesce to adults. This study concluded that by utilizing these factors, opportunity for greater specificity of attitudes dimensions were available and criterion behavior specifically related to each dimension could be used to validate studies.[60]

The MTAI has been used most often, aside from research methodology, as a screening devise for the selection of students in education programs and evaluating student teachers. In one such study the MTAI was found to correlate significantly with ratings by superiors during practice teaching regardless of the sex of the teacher. Other criteria for teaching

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[60]Yee, ibid, p. 129.

suitability did not correlate significantly with attitude scores. These included intelligence, grades, and such data. The MTAI was recommended as one of several criteria to be used to predict teaching success, but not to be relied on alone for the selection of teacher training candidates.[61]

Other studies have established varying degrees of significance indicating a positive relationship between MTAI teacher scores and pupil achievement.[62] Others have investigated relationships between MTAI scores and other teacher attributes which may influence learners. Generally, attitude surveys have been found to have at least slight positive correlations with various measures of teacher effectiveness in producing changes in the learner of performing certain acts considered desirable teaching behavior.

In a Q-study of desirable teacher traits, perception and attitudes toward education, Kerlinger found a significant relationshp. Individuals with progressive attitudes toward education chose person-oriented traits while individuals with traditional attitudes toward education chose task-oriented traits as most desirable in teaching behaviors.[63]

Robert Anderson's statement regarding the evidence that values held by teachers influenced the decisions they make in curriculum and in

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[61]Barry C. Munro, "The Minnesota Teachers' Attitude Inventory as a Predictor of Teaching Success," The Journal of Educational Research, 58:3 (November, 1964), pp. 138-139.

[62]Thomas B. Justiz, "A Method for Identifying the Effective Teacher" (unpublished Doctoral dissertation, University of California, 1968).

[63]Fred N. Kerlinger and Elazar J. Pedhazur, "Educational Attitudes and Perceptions of Desirable Traits of Teachers," American Educational Research Journal, 5, No. 4 (November, 1968), p. 557.

classroom management was upheld by the literature regarding values, beliefs, and attitudes. Indeed, the evidence suggested that these attributes hold implications for the successful development of children.[64]

III. TEACHER INFLUENCE ON PUPIL BEHAVIOR

Research on teacher influence on the educational process has resulted frequently in inconclusive findings which have been challenged or questioned in many quarters. Difficulty in extracting precise empirical evidence that is valid, reliable and free of extraneous effects has characterized social research efforts in education. The problem in determining teacher effectiveness appeared to be more related to that of determining pupil progress than of measuring the teacher affects directly, since most evaluation has relied to date on the product of teaching or pupil achievement.[65]

The Variables Influencing Pupil Achievement

Standardized tests, the most used measures of pupil progress, have been seriously challenged, particularly since the 1965 Equality of Educational Opportunity Survey of the U. S. Public Schools under the leadership of James Coleman. This survey seemed to indicate that affects of schooling were more dependent on students' socio-economic status for correlation with student achievements than upon the strength of any

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[64]Robert Anderson, "Pupil Progress," Encyclopedia of Educational Research, Fourth edition, ed. Robert Ebel (London: The Macmillan Company, 1969).

[65]Alexander M. Mood, Do Teachers Make a Difference? (Washington: U. S. Department of Health, Education and Welfare, 1970), p. 3.

other single variable. In isolation, teacher affect variables were discovered, such as education, salary level and experience, but when adjusted for student socio-economic status, their statistical significance diminished dramatically.[66] This massive nationwide study has been challenged widely and in later studies utilizing the same data, as well as other original research, conflicting results have been obtained. The strength of the influence of the home conditions on pupil achievement has been found to be stronger in language or communication skills such as reading, but of less importance in other areas of schooling. In international investigations, after socio-economic background and school factors had been discounted, some 60 percent of the source of the variance in achievement was still undetermined. Nevertheless, the later studies seemed to refute the position of critics who felt the school factors were nonessentials in equality of educational opoortunities when determined by pupil achievement records.

Recent educational practices and new evaluation concepts may provide evidence to further establish the importance of the impact of the teacher on the individual learner, even when socio-economic factors are accounted for, statistically. Increased development of specific teaching goals and objectives have made possible the measurement of teacher performance in terms of these objectives. Learning has been analyzed, sequenced and measured with more percision and objectivity as a result of this trend.

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[66] James S. Coleman and Others, Equality of Educational Opportunity (Washington: Government Printing Office, No. FS5.238:38001, 1966).

In a national conference aimed at summarizing the influence of teachers on pupil behavior the following major findings were supported by the numerous research studies represented there.

1. Teachers, as unique individuals interacting with other unique individuals, influenced pupils in relation to the outcomes of the following:

   A. pupil learning

   B. adjustment

   C. classroom performance

   D. socio-metric status

   E. attitudes

   F. liking for school and school-related activities

   G. later achievement

2. Teacher characteristics have been researched for the effective relationships between the outcomes in item 1 and the following:

   A. training

   B. traits

   C. behaviors

   D. attitudes

   E. values

   F. abilities

   G. sex

   H. weight

   I. voice quality

3. The research findings presented modest relationships with numerous contradictions that indicate the need for further controlled

studies of the complex phenomenon of the effectiveness of teachers.

These studies seemed to generally support that significant relationships do exist between pupil learning and the extent to which teachers exhibit the following:

1. An enthusiasm for the assigned tasks. A love for pupils is desirable and enhances the interpersonal relationship but, superisingly, it does not seem to be absolutely essential.

2. A pleasant, confident voice quality.

3. A warm and encouraging manner in directly responding to pupils. Essential to this response is the ability to listen to and to accept pupils as worthwhile persons; to build on existing good qualities, expecting that each child will succeed; and to provide frequent feedback to each child on his progress.

4. A knowledge of subject area(s) for which the teacher is responsible.[67]

In a pervasive review of the quantitative studies of teaching effectiveness, March and Wilder isolated certain effects that appeared to be generally supported by empirical evidence. Teacher intelligence did not appear to be correlated with pupil achievement although scholarship had a low positive relationship. Education in terms of courses or hours did have only slight positive significant correlation with pupil gain. The influence of teacher age was similar to the typical effectiveness pattern in most occupations where a rapid initial increase in effectiveness slows down the first five years. This period of peak effectiveness

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[67]Mood, op. cit.

leveled off for the next two decades after which effectiveness declined for most persons.

No significant relationships were found between pupil achievement and the following teacher attributes of sex, marital status, teaching aptitude measures, interests, photographers, or teachers' cultural or socio-economic status. Other attributes of teachers which influenced pupil gains were not considered in effectiveness ratings by supervisors.

Slight positive relationships were found for certain voice and speech qualities, attitudes, assisting with extracurricular activities. Ratings of teacher effectiveness by supervisors were sometimes more influenced by some factors such as scores on tests of professional information, classroom management and records management. However, these effectiveness ratings were not supported by pupil gain correlations.

Instructors' abilities such as empathy, professional maturity, general knowledge and social adjustment may be significantly related to teaching effectiveness, but all suffered from inadequacies of criteria for sound judgments. Personality studies have generally shown significant relationships with pupil gains, but instruments and samples were considered to require refinements and more research.

Teachers' Problems and Conflicts

A teacher's problems and conflicts in the classroom were real and demanding on the teacher's physical and emotional energies even if such problems were perceived only by that teacher. Efforts to assist teachers with these conflicts have been focused largely on the beginning teacher. However, supervisors and principals must work with all teachers at all

times. Attempts have been made to analyze certain teaching situations which produce characteristic problems. These findings were reviewed in the following sections.

Causes of teachers' failures. March and Wilder isolated those studies which investigated the causes of teachers' failure resulting in dismissal or resignations suggested by superiors. Factors found most responsible for creating insurmountable problems for such persons were those of poor discipline management and lack of cooperation. Other factors reported but not very significant were those of health, educational background, training, age, and knowledge of subject matter.[68]

The dimensions of teacher morale. Coughlan analyzed teacher morale factors using a factor analysis from teacher's self-reports. A questionnaire, the School Survey, was then designed to measure perceptions of important factors in the teacher's work environment as an index of teacher morale. Thirteen factors were identified and categorized into four general groups. Administrative factors included board functioning, system administration, work load, materials and equipment, and buildings and facilities. Working relationships factors were relationships with principals, colleagues, and community. School effectiveness involved factors identified as the instructional program and student development. The last category, career fulfillment, included the factors called performance appraisal, financial incentives, and professional autonomy. No

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[68]Joseph E. March and Eleanor W. Wilder, Identifying the Effective Instructor: A Review of the Quantitative Studies, 1900-1952. Illinois: Air Research and Development Command, Chanute Air Force Base (1954).

particularly strong factors emerged over the others identified, but all accounted for relatively small amounts of the total variance.[69]

Teacher survival. Another study investigated the problems or factors affecting teacher survival in Oregon. Coughlan investigated the influence of career processes of the populations employed.

The Oregon study resulted in the conclusion that male teachers were influenced by the role of organizational factors such as district size whereas females were not. The older the teacher the better the survival rate for females but less so for males. Teaching level and prior experiences were not found to be contributing factors to survival rates for either sex. Neither district per pupil wealth nor type significantly influence survival rates for either sex.[70] Each factor was a respresentative index of other forces which suggested other analysis approaches were necessary to determine the causes of teacher separation rates. The role that the increasing over supply of teachers and the resulting competition for positions will play in how teachers cope with their problems and their consequent decisions regarding continued employment could alter the results of future studies such as these. The shortage of positions could cause a decline in the rate of professional mobility with the result that teachers might have to face their problems realistically and make adjustments in previously untenable situations.

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[69]Robert J. Coughlan, "Dimensions of Teacher Morale," American Educational Research Journal, 7, No. 2 (March, 1970), p. 224.

[70]W. W. Charters, Jr., "Some Factors Affecting Teacher Survival in School Districts," American Educational Research Journal, 7, No. 1 (January, 1970), pp. 1-27.

Teachers' self-perceptions and concerns. Unfortunately, awareness of personal conflicts does little to resolve problems unless insights are gained concerning the self in interaction with others. Gorman attempted to build a theory of interaction for which he listed three basic factors to be reconciled. The first was the initial human situation followed by the subsequent activities and the outcomes of human interaction.[71] Some dissonance could be created for teachers when they find themselves faced with expectations for changed behaviors which may not be consonant with the initial human situation as related to values, beliefs and attitudes. Thus, if a teacher's self-perceptions were known to differ from the perceptions of others regarding desired teaching behaviors, then that teacher would experience internal conflict. How the teacher responded to this dissonance would be influenced by the degree of the discrepancy, the source of the feedback, and the teacher's initial disposition regarding the desired behavior. Festinger indicated some type of behavior resulted from conflicts, however, since dissonance was a motivating force leading to its own reduction.[72]

Tuckman and others investigated the extent of change in behavior or self-perception of teachers when various types of feedback on discrepancy between perceived self-behavior and perceptions of others were provided. Those teachers with the greatest discrepancy scores changed

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[71]Alfred H. Gorman, Teachers and Learners: The Interactive Process in Education (Boston: Allyn and Bacon, Inc., 1969) p. 31.

[72]Leon Festinger, A Theory of Cognitive Dissonance (Stanford: University Press, 1957), p. 291.

most in self-perception, but not in behavior.[73]

These studies of the concerns and problems of teachers pointed to the human nature of the teacher as a learner as much in need of motivation as pupil. Teachers presented unique situations personally as they interacted in their assigned roles with their pupils. Their concerns necessarily affected their decisions in the classroom.[74] This had corresponding, though subtle influence on each individual pupil. Their concerns, which have been shown to be closely related to their expectations or valued goals, also influenced their decisions in what to teach and how to teach it.

Thus, the caution of James Gallagher to beware of inaccurate assumptions regarding adequacy of cirriculum plans seemed to be well taken in view of the influence and the potential for alterning program purposes inherent in the teaching role. The literature generally stressed the fact that although little is known about teaching effectiveness, research has only begun to unravel the factors surrounding the teaching-learning act and the powerful, but complex role of interpersonal relationships between teachers and pupils. The implications of Gallagher's concern that curriculum planners do more than package cognitively valid and consistent sets of materials by considering also how these materials are

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[73]Bruce W. Tuckman and others, "The Modification of Teacher Behavior, Effects of Dissonance and Coded Feedback," American Educational Research Journal, 6, No. 4 (November, 1969), pp. 607-619.

[74]Chris Argyris, "Interpersonal Barriers to Decision Making," Harvard Business Review, 44:84-97 (1966).

introduced into the environment of the classroom is well supported by all that is known about teachers, thus far.[75]

How the pilot kindergarten program was introduced into the classroom was also subjected to teacher interpretation. In a comparison study of the pilot kindergarten unit teachers, Cabler found that those thirty years of age and over placed a significantly higher priority on the value of teaching knowledge of the fundamental process as a perceived task of the kindergarten. This particular task is representative of the intellectual approach to kindergarten which conflicts with the social-emotional philosophical approaches. Teachers ranked this task lower than either parents or principals, but within the teachers group, significant differences in goal perception was evident.[76] For some teachers, internal conflicts with the stated philosophy of the State's Pilot Kingergarten Program still existed despite in-service workshops and materials to encourage acceptance of the social-emotional philosophy.

Teachers Influence Pupils' Affective Learning

The influence that a teacher could bring to bear on a child's behavior was sometimes more complicated and perhaps more comprehensive in long term effects than merely that of academic achievement as shown in the previous studies. Other evidence focused more sharply on this deeper,

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[75]James J. Gallagher in Evaluation of Classroom Instruction by Barak Rosenshine, Review of Educational Research, 40, No. 2 (April, 1970), p. 241.

[76]Jesse K. Cabler, "The Task of the Kindergarten: Goal Perceptions of Principal, Teachers and Parents of Kentucky's 100 Pilot Kindergarten Units, Two Studies in Early Childhood Education, 47, No. 1 (Lexington: Bureau of School Services, University of Kentucky, 1974), pp. 29-30.

sometimes less immediately obvious influence of teachers on a child's "self-system" as Jersild described it. Jersild defined the "self-system" of children to be a complex developmental process which, in the earliest experiences with significant others (i.e., mother, family, teachers, peers) was influenced by reflected appraisals.[77]

In agreement with this reflection was that of William C. Menninger who said:

> Relationships with our parents, peers. . . and our teachers played a part in the development of our personality just as, in turn, our personality and attitudes toward our students are affecting their development.

Menninger added that through introjection children gradually adopt many of their teachers' attitudes and ideas. This influence was said to extend to liking for subjects when taught by well liked teachers, with a strong tendency to voluntarily continue pursuing these studies later.[78]

Teachers have been frequently imitated by their pupils. A study of four year olds with high and low reward teachers was conducted to explore the extent of pupil learning with each type of teacher. The children were significantly more influenced by the teacher who interacted more personally with the children than the teacher who was more remote and had less power to reward or reinforce.[79]

Others, concerned with affective learning in school, were convinced

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[77]Hamachek, pp. 554-560.

[78]Hamachek, pp. 153-171.

[79]Joan Grusec and W. Mischel, "Model's Characteristics as Determinants of Social Learning," Journal of Personal Social Psychology, Vol. 4 (1966), pp. 211-215.

that the teacher's behavior in the classroom was the major source of impact on the mental health of the child and that impact was second only to that of parents in potential for healing or hurting a child. Todd stressed the modeling influence teachers exerted on pupils in providing personal experiences with causal approaches to modify behavior being used on them. This allowed children to contrast the interaction processes in a positive manner. Only when the teacher could overcome defenses that imparied interpersonal relationships could he help his pupils to become socialized and fully capable of "becoming." Todd expressed the belief that teachers as a group tend to attach too little validity to felt meanings in their daily experiences while attributing too much validity to authority or printed texts.[80] This was a significant behavior in the lowest conceptual developmental stage in Murphy and Brown's Study described previously.

Rogers has said, "The knowledge that will endure are attitudes toward learning, critical thinking and decision making, and other skills and attitudes that. . . to stay open to new information." He also felt that the teacher was second only to the parents in their impact on the mental health of a child.[81]

Teaching Styles Characterize Teachers

The proliferation of reserach on teacher effectiveness may never result in a single model of the best teacher possible for all children.

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[80]Karen R. Todd, Promoting Mental Health in the Classroom (Rockville, Maryland: National Institute of Mental Health, 1973).

[81]Rogers, Freedom to Learn, op. cit., p. 46.

However, the evidence suggested that basic teaching styles existed which were characterized by certain patterns or differences in habitual ways of handling information and applying sanctions which were consistent and stable over class sessions.[82] Numerous studies have focused on the classroom interaction process in areas such as communication patterns, rewards and punishment, handling information and sanctions to verify the fact that teachers did differ; they did behave in predictable characteristic ways; and there were affects, though not always statistically significant on pupil behavior.

As these characteristic teaching styles have differed, teacher behavior has influenced pupil behavior in different ways. Some studies have established the parameters of these teaching styles and the resulting affects on pupil behavior. For example, narrow questioning by teachers was found to be a controlling, limiting force in the cognitive functioning of pupils. Even reduced effective mental activity in pupils resulted from narrow questioning by teachers. In turn, this resulted in irrational unproductive, and arbitrary mental processing which relied on memory or authority instead of on judgment and inference.[83]

Authoritarian leadership styles in the classroom teacher resulted in less learning, dependence, rigidity in responses, noncooperativeness and less involvement. This result was further substantiated by the

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[82]Patricia D. Murphy and Marjorie M. Brown, "Conceptual Systems and Teaching Styles," American Educational Research Journal, 7:4, (November, 1970), p. 529.

[83]Hilda Taba, "Teaching Strategies for Cognitive Growth," eds. E. M. Bower and W. S. Holister, Behavioral Science Frontiers in Education (New York: Wiley and Sons, 1967).

contrasting evidence that the democratic or open integrative styles produced more learning, independence, involvement, abstractness in response and less anxiety.[84]

Research studies like that of Anderson and Brewer have shown that dominative or authoritarian styles of teacher behavior generally resulted in less learning by pupils, more dependence on the teacher, more concreteness in pupil responses, and less cooperation and involvement in classroom activities. Results of democratic or integrative teaching styles have been shown to produce greater achievement, more pupil involvement, more abstractness in response, greater independence and less anxiety.

Harvey, Hunt, and Joyce investigated a reflective style wherein teachers handled information by helping students theorize and express themselves. A statistically significant correlation was found between this reflective style and the teachers' conceptual systems, which the authors described as a structure or organization of concepts which operate together producting characteristic conceptual functioning.[85]

Teacher behavior has been described as a complex interactional process in studies of teacher effectiveness with disadvantaged pupils. The same teaching behavior resulted in different results in achievement for high self-concept groups and low self-concept groups of students. Higher achievement was associated with the following behaviors: (a) teacher interaction with a single child rather than the whole group,

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[84]H. H. Anderson, J. E. Brewer and M. F. Reed, "Studies of Teachers Classroom Personalities," Applied Psychological Monographs, 3:11 (1946).

[85]O. J. Harvey, David E. Hunt and Harold M. Shroder, Conceptual Systems and Personality Organization (New York: Wiley and Sons, 1961), p. 315.

(b) private as compared to public interaction, (c) low emphasis on controlling behavior, and (d) more evaluation of children's work. However, with self-concept as the aptitude variable, individualized instruction was not effective in improving achievement or self-concept in post tests with low self-concept students. However, there was significant interaction with the teaching styles, each with differing behaviors, when students self-concept was considered. These results served to illustrate the importance of a teacher's sensitivity to pupil responses and corresponding decision-making skills necessary for choosing appropriate teaching behaviors when interacting with each individual child. In this respect, teacher behavior did make a difference.[86]

Conceptual systems influence teaching behavior. Further, evidence that teachers consistently behave in characteristic ways was presented in a study which investigated the relationship between teachers' conceptual systems and their subsequent behavior in the classroom. In a study hypothesizing that teachers characterized by different conceptual systems would exhibit different teaching patterns, teachers were categorized by their scores on an instrument which organized concepts into four states in conceptual development from concreteness to abstractness. The teaching patterns were determined from samplings of teacher-pupil verbal interactions which were recorded by the teachers themselves. Support was found for the conceptual systems approach to predicting verbal interaction in

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[86]Pauline S. Sears, et al., Effective Reinforcement for Achievement Behaviors in Disadvantaged Children: First Year (Stanford: Stanford Center for Research and Development in Teaching, 1973), p. 40.

all categories except one called "delivering information" and two regarding the application of sanctions (conformity to rules and general support). There were differences in support of the hypothesis, but, between the teachers in the different conceptual systems, the difference was not statistically significant.[87]

Yet, there was evidence that teacher styles could be distinguished and, to some extent, the consistent behavior of teachers in the teaching role could be predicted when the teachers' conceptual system was known. Harvey, Hunt and Shroder's conceptual system, which provided the theoretical framework for the above study was representative of a structure or organization of concepts which operated together producing characteristic conceptual functioning.[88] This conceptual functioning was investigated again by Harvey and others, who repeated his earlier study. In this and a subsequent study in 1968, using preschool teachers' reports on their belief systems categorized by concreteness or abstractness, a significant relationship was found between these categorized groups and the classroom environments they created. Specifically, teacher resourcefulness was correlated significantly and positively with student cooperation, involvement and achievement. A significant correlation existed with concreteness of pupil responses. Teacher dictitorialness correlated significantly and negatively with students' cooperation, involvement, activity achievement, and helpfulness. A significant positive correlation

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[87] Patricia D. Murphy and M. M. Brown, op. cit., pp. 529-530.

[88] O. J. Harvey, D. E. Hunt, and H. M. Shroder, Conceptual Systems and Personality Organization (New York: Wiley and Sons, 1961), 375 pp.

was found between teacher punitiveness and concreteness of pupil behavior.

Harvey had two major conclusions based on this and the two previous studies of teacher belief systems and their resulting teaching styles or behaviors which are significant to this study. First, the concreteness--abstractness of teachers' belief systems affected their overt resourcefulness, dictatorialness, and punitiveness in the classroom. Second, the classroom behavior of the teacher and the behavior of the pupils were significantly related.[89]

IV. Q METHODOLOGY

Classroom learning was said to be primarily determined by the teacher's perceived differences between children and adults, a fact that made recognition of commonalities almost impossible.[90] This might be a reasonable estimate of the complexity of defining the structure of the teacher-learning process, but antecedents to perceptions may offer some insights into individual teaching styles.

In one such study, George Huff used a Q-sort to assess the attitudes toward personal traits, value systems, and self-concepts of the role of a teacher. Findings showed that it was possible to assess the affective behaviors and changes in affective behavior of student

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[89] O. J. Harvey, B. J. Whitehead and J. Huffmeister, "Teachers' Beliefs, Classroom Atmosphere and Student Behavior," American Education Research Journal, 5:151-235 (March, 1968).

[90] Seymour B. Sarason, The Culture of the School and the Problem of Change (Boston: Allyn and Bacon, Inc., 1972), p. 182.

teachers during their teaching apprenticeship with Q methodology.[91]

Instruments such as Q-sort and the semantic differential instruments were being devised to utilize programs such as Huff's to take advantage of the capacities of Q methodology to assess intra-person factors which have thus far resisted parametric research mehtods. The Q-sort devise was used to assess teachers' perceptions of problems in this study to test Expectancy Theory on groups of persons who have known attributes or characteristics. Using the Q-technique, statements were categorized from the random items submitted by the teachers into a structure designed to utilize the Getzel's model of teacher styles along the three dimensions of idiograph, transactional and nomothetic styles. Sixty statements were selected for the total sample from the problems suggested and ranked by the teachers as being most critical (Appendix, page 136). Teachers were instructed to distribute small cards, each containing one of the sixty statements, into a quasinormal distribution. In this case the cards were sorted into nine piles; the pile of statements to the left represented problems encountered which were of most concern and the pile to the right representing problems of no concern. Scores were assigned according to the pile into which the teacher sorted the statements.

This procedure allowed a self-description offered by the teachers in terms of a Q-sort for a structured sample of concerns based on the teaching styles in Getzels' social systems model of classroom interaction.

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[91]George P. Huff, Evaluation of Attitudes Relating to Teaching (Educational Research Information Center, ERIC ed. 003 843, 1964), p. 157.

Norms or standard scales were not necessary in Q methodology since it was not assumed that every individual possessed standardized quantities of any particular attribute.

The subjects were often known to possess certain attributes and as such were selected for testing along certain theoretical lines. The main effects in the variance procedures were anticipated, but the interaction needed to be discovered. Thus, the psychological thinking would precede the statistical analysis and not vice versa.[92] Thus, singular propositions could be investigated using the same subjects but changing the subjects, pictures or whatever represented the principles to be empirically tested.

The Q-method was not intended as a means of testing a theory for general implications as in R-methodology. It does provide hypothesis testing with individuals or groups to allow the development of theoretical issues along explicit deductive lines. Unstructured sorts could be used also to experimentally discover factors through the factor analysis of single or repeated applications of the Q-sort to an individual or groups of individuals.

Q methodology was based on Stephenson's concepts regarding intra-individual differences and was therefore most useful in the assessment of affective behaviors. The statistical data were derived from the Q-sort arrays created by the subjects as they sorted the statements as they have relative significance to each sorter's self-reflection and were guided

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[92]William Stephenson, The Study of Behavior: Q-Technique and Its Methodology (Chicago: University of Chicago Press, 1953), 376 pp.

by internal value decisions. Analysis of variance was the statistical technique employed to determine significant effects.

When groups were considered rather than individuals the data from individual Q-sorts were summed and ranked prior to being rearranged into a new Q-array. Thereafter, Q-scores for groups could be treated for statistical significance in the same manner that individual Q-sorts could be handled.[93]

V. SUMMARY

The review of the literature in the areas which were pertinent to this study revealed the following points of information which provided an impiric basis for investigation:

1. Perceptual psychologists have constructed learning and personality theories on the premise that activation of sensory receptors result in (a) interaction with external and internal environmental factors, (b) categorization of information and (c) confirmation of appropriateness of categorization processes. Individuals learn to expect or predict correct categories and appropriate responses over a period of time based on previous experiences, whether personal or vicarious encounters. Thus, antecedents to perception were created as learning processes proceeded, whereby individuals hypothesized or expected certain conditions causing perceptual attending to selected cues in the environmental field.

2. Attitude studies indicated that behavior was influenced

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[93]Huff, op. cit., p. 157.

significantly by strongly held attitudes and that perceptual responses were related to the strength of internal expectancies or hypothesis. Teachers and others in helping professions influenced the behavior of their pupils or clients who perceived certain attitudes and expectations to be held by their teachers.

3. Resulting teacher behaviors which were contingent on attitudes giving direction to perception have been found to influence pupil behaviors or learning. Academic achievement and particularly affective learning by pupils was influenced by the teacher. The research on perceptual responses indicated a distinct relationship between teaching behavior and teachers' perceptions of situations as problems. It was known that individuals direct energy toward the resolution of recognized problems.

4. Q-methodology has been particularly effective in researching affective areas and person factors in social interaction processes.

CHAPTER III

PRESENTATION AND ANALYSIS OF THE DATA

The design of this study was pertinent to the determination of significant differences between certain antecedent conditions to perception and the kinds of problems perceived by teachers initiating a 100 unit kindergarten program in Kentucky during the 1973 school year. The data were presented separately for each antecedent variable as the categories of teachers within these groups scored on problem Q-sort group arrays.

The design for distinguishing the main effects expressed in the problem statements is illustrated in Figure 1. The Q-design for problem analysis indicated two main effects with levels designated within each. The A effect, the concern orientation, provides the emphasis of caring for the well being of institutions, groups, self or the individual child. The B effect, the expectation dimension, provided the focus of assumed appropriateness or valued behavior on nomothetic transactional or idiographic dimensions. This design allowed polar extremities in cells ae and dg when these effects were combined to distinguish problems in degrees of either socializing individuals or personalizing roles (Appendix, Table XXV).

The data for each variable were presented in the following order: the general characteristics of each classified group within a variable grouping in relation to other variables; analysis of variance between classified groups as each scored in the main effects in Figure 1; analysis

MAIN EFFECTS	LEVELS
A: Concern Orientation	a: Institution b: Group c: Self d: Child
B: Expectation Dimension	e: Nomothetic f: Transactional g: Idiographic

FIGURE I

ILLUSTRATION OF Q-SORT DESIGN
FOR PROBLEM ANALYSIS

of variance within classified groups regarding emphasis in kinds of problems perceived when total variable Anova indicated significant variance between groups.

The problem statements and the paradigm for distinguishing problems (Appendix, p. 140) provided the basis for assigning Q-scores in the matrix for each classified grouping within variable groups. Column scores for the analysis of variance were derived from the score matrix (Appendix, Table XXV). The data were derived from SAS computer programs prepared at The University of Tennessee Computer Center.

I. THE ANTECEDENT, ATTITUDE

The teachers were classified by MTAI scores into low (raw MTAI scores from -150 to thirty-three); middle (raw MTAI scores from thirty-four to eighty-two); and high (raw MTAI scores from eithty-three to 150). The characteristics of the classified groups in terms of the other independent variables are contained in Table I.

The low and middle attitude groups were slightly older than the high group, but all were within the same classified age group from twenty to thirty-five years of age when the means were compared. The three groups also fell within the same teaching experience category, but the high attitude group had more varied experiences in teaching at different grade levels. The three groups were equal in the educational preparation mean group classification.

Analysis of variance of the scores of the attitude groups of teachers indicated significant variance between the kinds of problems perceived by these groups in Table II. The concern orientation

TABLE I

GROUP CHARACTERISTICS OF TEACHERS
CLASSIFIED BY ATTITUDE GROUPS

Attitude Group	MTAI Raw Score Range	Number	Mean of Age Group	Mean of Teaching Exp. Group	Mean of Years Ed. Pre. Group
1	-150 to 33	19	1.4	2.2	1.1
2	34 to 82	61	1.4	2.2	1.1
3	83 to 150	20	1.2	2.3	1.1

TABLE II

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION BY TEACHERS CLASSIFIED BY LOW, MIDDLE, AND HIGH MTAI SCORES

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Level
TOTAL	574.99	179	3.21		
ERROR	378.80	144	2.63		
A/CONCERN	123.93	3	41.31	15.70 **	.0001
B/EXPECTATION	33.41	2	16.71	6.35 **	.002
INTER	21.52	6	3.59	1.36	.23

* $p < .05$; ** $p < .01$

distinguished between the kinds of problems with a .01 level os statistical significance as perceived by the groups of teachers when classified by high, middle and low attitude scores. An F ration of 15.70 existed between the groups on the A factor or concern orientation levels. The B factor accounted for a significant level of variance to distinguish the kinds of problems perceived by the groups of teachers with an F score of 6.35 which was also significant at the .01 level. The interaction between the factors was 1.36 which was not significant.

The F tests for the low scoring MTAI group did not yield significant F ratios for either factor (Table III). The A factor did account for significant variance in the kinds of problems perceived by the middle MTAI scoring teachers (Table IV) with an F score of 8.00. The variance was not significant for the B Factor (1.68 F score) or between factors A and B (0.53 F score) for the middle MTAI scoring group of teachers (Table IV). Similar results were found with the high MTAI scoring group of teachers in Table V. The A Factor accounted for a significant level (.01) of variance between the kinds of problems perceived by teachers in the high group. The B Factor did not distinguish variance in kinds of problems perceived at a significant level (F score 2.66). The interaction between factors A and B (F score 1.18) was also not significant.

The F scores, although failing to attain significant levels, often approached positive significance of variance in the kinds of problems perceived by teachers when classified by MTAI scores. The scores for the Q design cells ae and dg (Table VI indicated a definite pattern of increaded loading on problems in the socialization of individual for low MTAI scoring teachers and an increased loading on problems of personalizing

TABLE III

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION BY TEACHERS CLASSIFIED BY LOW MTAI SCORES

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Levels
TOTAL	190.00	59	3.22		
ERROR	148.40	48	3.09		
A/CONCERN	21.73	3	7.24	2.34	.08
B/EXPECTATION	14.70	2	7.35	2.38	.10
INTER	5.17	6	0.86	0.28	.94

* $p < .05$; ** $< .01$

TABLE IV

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION BY TEACHERS CLASSIFIED BY MIDDLE RANGE MTAI SCORES

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Levels
TOTAL	192.98	59	3.27		
ERROR	118.00	48	2.46		
A/CONCERN	58.98	3	19.66	8.00 **	.004
B/EXPECTATION	8.23	2	4.12	1.68	.19
INTER	7.77	6	1.29	0.53	.78

* $p < .05$; ** $p < .01$

TABLE V

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION BY TEACHERS CLASSIFIED BY HIGH MTAI SCORES

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Levels
TOTAL	191.93	59	3.25		
ERROR	112.40	48	2.34		
A/CONCERN	50.47	3	16.82	7.18 **	.0007
B/EXPECTATION	12.43	2	6.22	2.66	.007
INTER	16.63	6	2.77	1.18	.33

* $p < .05$; ** $p < .01$

TABLE VI

TEACHERS PERCEPTIONS OF PROBLEMS WHEN CLASSIFIED BY MTAI SCORES--CELL LOADING ON EXTREME NORMATIVE DIMENSION CELL AE AND EXTREME PERSONAL DIMENSION CELL DG

Attitude group	Cell ae scores	Cell dg scores	Score range
Low	18	26	+8
Middle	16	29	+13
High	13	30	+17

roles for high MTAI scoring teachers. Cell scores of the low, middle and high MTAI scoring groups were 18, 16, and 13 respectively for cell ae, representing perception of problems distinguished by extreme nomothetic expectations with institutional concern orientation. At the other extreme, cell scores of the MTAI scoring groups of low, middle and high were 26, 29, and 30 respectively for cell dg, representing extreme idiographic needs expectations with concern focused on the child.

In summary, the classification of teachers by attitude scores on the MTAI into low, middle, and high scoring groups yielded significant levels of variance within each group and between groups when group problem perception Q-sort arrays were analyzed for problem concern orientation variance. However, when analyzed for variance in perception of problems by expectation orientation the F scores failed to attain significant levels. Neither was there significant variance in the problem perception of any group or between groups when analyzed for interaction variance between these factors. Cell scores for the groups indicated higher loading on those problems in the normative, institution realm for low MTAI scoring teachers. The pattern was more pronounced in preference for problems in the personalization of roles by high MTAI scoring teachers.

II. THE ANTECEDENT, AGE

Each teacher, when classified by age, was assigned to one of three categories as shown in Table VII. Group one was the largest with seventy-six teachers between the ages of 21 and 35 years of age. This group also had the least experience as expected. However, the other

TABLE VII

GROUP CHARACTERISTICS OF TEACHERS CLASSIFIED BY AGE

Age Group	Age Range	Number	Mean of Attitude Group	Mean of Years Exp. Group	Mean of Ed. Prep. Group
1	21 to 35	76	2.0	2.1	1.0
2	36 to 55	14	2.2	2.7	1.1
3	55 to 65	10	1.7	2.8	1.1

age groups, two with fourteen teachers and three with ten teachers, also had mean group numbers equal to the same experience group or category two indicating more than one full year of experience with kindergarten classes.

All three age groups had years experience means placing them in group two which indicated the older the teacher the more varied the teaching experience. The older teacher groups also had more teachers trained originally to teach in secondary school with later courses taken to qualify for the addition of elementary and kindergarten endorsements to their original teaching certificates. The intermediate age group, category two, had the highest mean attitude group scores (2.2) although the youngest group, category one, had an attitude group mean score (2.0) classifying both in attitude group two. The lowest mean attitude group score was indicated for the oldest teachers who scored in the low attitude group (attitude group mean 1.7).

The teachers' problem Q-scores, when rearranged by group classifications according to thier ages, were assigned to the theoretical model cells to determine the column numbers for the analysis of variance between the problem perception of the three groups of teachers when categorized by age.

The F score of 17.52 for the A effect or the concern orientation was statistically significant at the .0001 level. The teachers in each of the three age groups did view problems significantly differently when the problems were classified by the levels of concern orientation. Their problems were differentiated predominantly by concern about institutional needs, group needs, self needs or the child's needs.

The F score of 7.56 for the B effect or the expectation dimension in Table VIII was statistically significant at the .001 level. The teachers in the three age groups also perceived different kinds of problems significantly differently when classified by age when the problems were identified by the expectation dimension with levels of the idiographic expectations, the transactional expectation and the nomothetic expectation. The interaction between the A effect and the B effect was not statistically significant with an F ratio of 1.29.

An analysis of variance for each age group was performed to determine significance of variation in the way the theoretical classifications of problems were perceived by the teachers in each group in Table IX. The analysis of variance is shown for the youngest age group one.

The F score (8.10) for the youngest teachers' perception of problems, classified by A effect or concern orientation, was significant statistically at the .0004 level to exceed the .05 criteria. The B effect or expectation dimension F score was 3.22 which was at the .05 level of statistical significance. The interaction F score (.93) between the A effect and the B effect was not significant. The Anova Table X contains the data for the middle group or age group two for teachers aged thirty-five to fifty-five years of age. The F score for the A effect, the concerns orientation, was 6.76, which was statistically significant at the .0009 level. The B effect F score (2.12) and the interaction F score between the A effect and the B effect (1.20) were not significant.

Age group three, the oldest group of teachers, represented in the Anova Table XI, indicated the teachers in age group three perceive different kinds of problems, particularly in their concern orientation.

TABLE VIII

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED IN THREE AGE GROUPS

ANALYSIS OF VARIANCE

Var	SS	DF	MS	F rations	Significance Level
TOTAL	564.99	179	3.16		
ERROR	356.80	144	2.48		
A/CONCERN	130.24	3	43.41	17.52 **	.0001
B/EXPECTATION	37.54	2	18.77	7.56 **	.001
INTER	19.21	6	3.20	1.29	.26

* $p < .05$; ** $p < .01$

TABLE IX

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS AGED TWENTY TO THIRTY-FIVE YEARS OF AGE

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Levels
TOTAL	188.98	59	3.20		
ERROR	107.60	48	2.24		
A/CONCERN	14.43	3	18.15	8.10 **	.0004
B/EXPECTATION	54.45	2	7.22	3.22 *	.047
INTER	12.50	6	2.08	0.93	.32

* $p < .05$; ** $p < .01$

TABLE X

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS AGED THIRTY-SIX TO FIFTY-FIVE YEARS OF AGE

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Level
TOTAL	188.00	59	3.19		
ERROR	113.20	48	2.36		
A/CONCERN	47.87	3	15.96	6.76 **	.0009
B/EXPECTATION	10.00	2	5.00	2.12	.12
INTER	16.93	6	2.82	1.20	.32

* $p < .05$; ** $p < .01$

TABLE XI

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS AGED FIFTY-SIX TO SIXTY-FIVE YEARS OF AGE

ANALYSIS OF VARIANCE

Var	SS	DF	MS	F ratios	Significance Level
TOTAL	188.00	59	3.19		
ERROR	136.00	48	2.83		
A/CONCERN	32.93	3	10.98	3.88 **	.01
B/EXPECTATION	17.10	2	8.55	3.02 *	.05
INTER	2.00	6	0.33	0.12	.99

* $p < .05$; ** $p < .01$

The A effect F score of 3.88 was significant at the .01 level of significance. The B effect F score of 3.02 was significant at the .05 level of statistical significance. The interaction was not statistically significant with an F score of 0.12.

When scores in the extreme cells in the Q design were considered (Table XII) the tendency to load on the dg cell was apparent for all age groups of teachers but this preference was more apparent among the younger teachers. The middle age group two who had slightly higher attitude scores also loaded heavier on cell dg to show somewhat more concern for the child and less for themselves than the youngest group one.

Summarizing the results of the age grouped data treatment, a significant amount of variance between the kinds of problems perceived by teachers was found for both main effects A and B, the concern orientation and the expectation dimension. Significant interaction variance between these main effects was not found. The youngest teachers varied in their preference of problems regarding their concern orientation most, but they also varied significantly in their perception of problems in the expectation dimension. The interaction between the main effects was not significant. The intermediate age group varied significantly in their perception of problems in the concern orientation. No other significant variance was found for the B effect or the interaction.

The oldest group of teachers varied significantly for both A and B effects, with that for the A effect being most significant. This group, like the others, did not produce significant interaction variance. The younger teachers loaded on items in the idiographic or personal categories,

TABLE XII

TEACHERS PERCEPTIONS OF PROBLEMS WHEN CLASSIFIED BY AGE--CELL LOADING ON EXTREME NORMATIVE DIMENSION CELL AE AND EXTREME PERSONAL DIMENSION CELL DG

Age Group	Cell ae scores	Cell dg scores	Score Range
1	15	29	+14
2	16	31	+15
3	15	23	+8

but slightly greater concern was expressed for their self needs than for the child's perconality needs. The older teachers showed generally less perference for themselves, being more often concerned with normative or institutional matters.

III. THE ANTECEDENT, EDUCATIONAL PREPARATION

The teachers were classified by educational preparation into a group holding elementary teaching certificates with kindergarten endorsement and a group of persons with a secondary subject teaching certificate with both elementary and kindergarten endorsements. The characteristics of these groups in terms of the other antecedent conditions investigated are found in Table XIII. In both groups the classification group means of other antecedents were the same. The groups were evenly represented by a full range of MTAI scores. The group two teachers were slightly older, however, and group one had slightly more varied teaching experience. The groups were evenly balanced in these antecedent characteristics, but the number of persons in group one was much greater with ninety-five and five teachers in each group, respectively.

The total variance between the two groups in Table XIV is significant at the .05 level statistically in perception of problems in the expectations dimensions. No other significant results were found for either the concern orientation (at .089 level), the A effect, or in the interaction between the main effects A and B. However, an F ratio of 3.34 was found between the educational preparation and the A effect or concern orientation at the .02 level of statistical significance.

TABLE XIII

GROUP CHARACTERISTICS OF TEACHERS CLASSIFIED BY EDUCATIONAL PREPARATION

Educational Groups	Number	Mean of Attitude Group	Mean of Age Group	Mean of Teaching Experience
1	95	2.0	1.3	2.2
2	5	2.0	1.6	2.0

TABLE XIV

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED BY EDUCATIONAL PREPARATION, ALL GROUPS

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Signifiifance Level
TOTAL	380.93	119	3.20		
ERROR	282.40	96	2.94		
A/CONCERN	19.63	3	6.54	2.22	.089
B/EXPECTATION	18.35	2	9.18	3.12 *	.047
INTER	20.05	6	3.34	1.14	.35
ED PREP AND A/CONCERN	29.49	3	9.83	3.34*	.02

* $p < .05$; ** $p < .01$

The analysis of variance in kinds of problems perceived by the teachers in group one who were trained for elementary teaching with kindergarten endorsement, shown in Table XV, produced one statistically significant F score (6.06) for the expectations dimension, or B effect, at the .001 level of significance. The A effect and the interaction between the main effects A and B did not account for significant variance in the problems selected.

Group two results are shown in Table XVI. The analysis of variance produced no significant F scores to comply with the criteria of .05 statistical significance. The B effect or expectation dimensions, with an F ratio of .16 at the .08 level of significance, almost attained the criteria.

Teachers in educational preparation group two loaded higher on the normative cell ae than teachers in group one who were originally prepared for elementary teaching level (Table XVII). This preference was opposite on the cell dg loadings for group one and two, with secondary prepared teachers showing fewer idiographic concerns while the group one teachers followed the usual pattern encountered in the study by loading more in cell dg.

In summary, analysis of the educational preparation of teachers for their various teaching roles before the pilot kindergarten program with their problem perception produced significant variance, despite the similarity of the groups regarding other antecedent classifications. The two groups varied significantly in their problem perception in the expectation dimension. Teachers prepared for elementary and kindergarten teaching were more concerned for personality needs and the individual,

TABLE XV

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED BY EDUCATIONAL PREPARATION-ELEMENTARY MAJOR WITH KINDERGARTEN ENDORSEMENT

ANALYSIS OF VARIANCE

Var	SS	DF	MS	F ratios	Significance Level
TOTAL	188.00	59	3.19		
ERROR	125.60	48	2.62		
A/CONCERN	47.60	3	15.87	1.09	.34
B/EXPECTATION	5.70	2	2.85	6.06 **	.001
INTER	9.10	6	1.52	0.58	.74

* $p < .05$; ** $p < .01$

TABLE XVI

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED BY EDUCATIONAL PREPARATION--SECONDARY SUBJECT MAJOR WITH ELEMENTARY AND KINDERGARTEN ENDORSEMENTS

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Level
TOTAL	192.85	59	3.27		
ERROR	156.80	48	3.27		
A/CONCERN	1.52	3	0.51	0.16	.92
B/EXPECTATION	17.20	2	8.60	2.63	.08
INTER	17.33	6	2.89	0.88	.51

* $p < .05$; ** $p < .01$

TABLE XVII

TEACHERS PERCEPTIONS OF PROBLEMS WHEN CLASSIFIED BY EDUCATION PREPARATION--CELL LOADING ON EXTREME NORMATIVE DIMENSION CELL AE AND EXTREME PERSONAL DIMENSION CELL DG

Educational Preparation Group	Cell ae scores	Cell dg scores	Score Range
1	16	27	+11
2	21	16	-5

whereas, those originally prepared to teach at more advanced level, with subject specialization tended to be concerned about normative problems and institutional needs. The ratio between the educational preparation variance and that of the A effect was also significant. Group one had significant variance in kinds of problems perceived in the expectation dimension, whereas, group two results failed to attain significance. Nevertheless, a similar tendency to vary most in the same dimension was evident. Examination of cell loadings indicated this loading was toward nomothetic problems for group two and toward idiographic problems for group one.

IV. THE ANTECEDENT, TEACHING EXPERIENCE

Finally, the teachers were classified by their teaching experience into categories of (1) no previous experience or less than a full school year teaching; (2) one or more years in kindergarten teaching; (3) one or more years in elementary teaching only and (4) one or more years in secondary teaching in combination with any other level teaching. The general group characteristics in terms of the other antecedents investigated are shown in Table XVIII. The largest group in number was group one with thirty-nine beginning teachers. Next was group three with twenty-six former elementary teachers who retrained to teach in kindergarten. Group two, the experienced kindergarten teacher, numbered eighteen and the combined group four had sixteen teachers.

All groups fell into the same mean attitude group, except the group two teachers whose attitude scores were generally lower enough to have an attitude group mean of 1.8. All would fall into group one in

TABLE XVIII

GROUP CHARACTERISTICS OF TEACHERS CLASSIFIED BY TEACHING EXPERIENCE

Teaching Experience Group	Number	Mean of Attitude Group	Mean of Age Group	Mean of Education Prep. Group
1	39	2.1	1.0	1.1
2	18	1.8	1.9	1.1
3	26	2.1	1.2	1.0
4	16	2.1	1.7	1.1

the age groups, but again group two appeared somewhat older than the others. The educational preparation mean groups for each present grouping was very similar with all in the group one range.

The analysis of variance for the total groups in Table XIX produced significant F scores for both A effect (F ratio of 19.47, significant at the .0001 level) and B effect (F ration of 9.50, significant at the .0003 level). The interaction between A and B factors failed statistical significance tests.

Table XX contains the analysis of variance of the kinds of problems perceived by teaching experience group one. The A effect (concern orientation) did account for a significant amount of the variance (F value of 3.90, .01 level of significance) in perception of different kinds of problems. No other significant variance resulted for either the B effect, expectations dimension, or the interaction between the factors A and B. The F value of B effect was 1.58 which was at the significance level 0.21.

Teachers in teaching experience group two (Table XXI) did not vary significantly in their perceptions of problems for the A effect (2.31 F value at .8 significance level); B effect (2.13 F value at .12 significance level); or in the interaction between the A and B factors. Table XXII represents the analysis of variance between the kinds of problems perceived by teachers in teaching experience group three. These teachers varied significantly in their perceptions of problems in the A effect, concern orientation with an F value of 12.18 which was significant at the .0001 level. The F value for the B effect or expectations dimension was 2.47 which was at the .09 level of statistical significance. The interaction

TABLE XIX

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED BY TEACHING EXPERIENCE, ALL GROUPS

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Level
TOTAL	756	239	3.16		
ERROR	493.20	192	2.57		
A/CONCERN	150.00	3	50.00	19.47 **	.0001
B/EXPECTATION	48.83	2	24.41	9.50 **	.0003
INTER	22.78	6	3.80	1.48	.18

* $p < .05$; ** $p < .01$

TABLE XX

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED BY LESS THAN A YEAR OF TEACHING EXPERIENCE

ANALYSIS OF VARIANCE

Var	SS	DF	MS	F ratios	Significance Leval
TOTAL	190.98	59	3.24		
ERROR	137.60	48	2.87		
A/CONCERN	33.52	3	11.17	3.90 **	.01
B/EXPECTATION	9.03	2	4.52	1.58	.21
INTER	10.83	6	1.81	0.63	.70

* $p < .05$; ** $p < .01$

TABLE XXI

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED BY ONE OR MORE YEARS TEACHING EXPERIENCE IN KINDERGARTEN

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Level
TOTAL	188.00	59	3.19		
ERROR	144.80	48	3.02		
A/CONCERN	20.93	3	6.98	2.31	.8
B/EXPECTATION	12.90	2	6.45	2.13	.12
INTER	9.37	6	1.56	0.52	.79

* $p < .05$; ** $p < .01$

TABLE XXII

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED BY ONE OR MORE YEARS TEACHING EXPERIENCE IN ELEMENTARY CLASSES ONLY

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Level
TOTAL	188.00	59	3.19		
ERROR	94.40	48	1.97		
A/CONCERN	71.87	3	23.96	12.18 **	.0001
B/EXPECTATION	9.70	2	4.85	2.47	.09
INTER	12.03	6	2.01	11.02	.42

* $p < .05$; ** $p < .01$

variance was not significant.

In Table XXIII, both main effects were shown to distinguish significant differences in the kinds of problems perceived by the teachers with wide teaching experience at all levels of instruction. The A concern factor had an F ratio of 5.07 which was significant at the .004 level. The B expectation factor had an F ratio of 6.03 which was significant also at the .004 level. The interaction was not significant.

Cell ae and cell dg loadings were examined to determine the nature of the variance in teachers' problem perception within each of the four teaching experience groups in Table XXIV. All four groups loaded on cell dg, the idiograph and child concern extreme cell. However, the groups three and four loaded more on dg and less on cell ae with each having a score range between these cells of seventeen points.

Summarizing these teaching experience group results, the most significant variance in the kinds of problems perceived was between groups A effect and B effect. A effect variance was highly significant for group three and group four with some significance also for group one. Group four also had significant variance in the kinds of problems perceived by teachers within the group in relation to the B factor or expectation dimension problems.

V. SUMMARY

Attitude scores from the MTAI, when used to classify teachers into high, middle and low scoring groups, accounted for significant variance between groups in the kinds of problems perceived in both main effects factors, A , the concern orientation and B, the expectation dimension.

TABLE XXIII

GROUP PERFORMANCE ANALYSIS OF PROBLEM PERCEPTION OF TEACHERS CLASSIFIED BY ONE OR MORE YEARS OF COMBINED SECONDARY, ELEMENTARY OR KINDERGARTEN TEACHING EXPERIENCE

ANALYSIS OF VARIANCE					
Var	SS	DF	MS	F ratios	Significance Level
TOTAL	188.98	59	3.20		
ERROR	116.40	48	2.43		
A/CONCERN	36.85	3	12.28	5.07 **	.004
B/EXPECTATION	29.23	2	14.67	6.03 **	.004
INTER	6.50	6	1.08	0.47	.84

* $p < .05$; ** $p < .01$

TABLE XXIV

TEACHERS PERCEPTIONS OF PROBLEMS WHEN CLASSIFIED BY TEACHING EXPERIENCE--CELL LOADING ON EXTREME NORMATIVE DIMENSION CELL AE AND EXTREME PERSONAL DIMENSION CELL DG

Teaching Experience Group	Cell ae scores	Cell dg scores	Score Range
1	17	27	+10
2	22	26	+4
3	14	31	+17
4	14	31	+17

Significant variance was found for main effects concern factor A within attitude groups two and three. The groups loaded more evenly in the cells in the Q-design within groups than among groups. An examination of the cell scores indicated that as attitude scores increased cell scores increased in the direction of personalization of roles. As attitude scores decreased cell scores were higher in those cells with items concerned with socialization of the individual.

Age classifications of the same teachers yielded significant F values for the between groups variance in kinds of problems perceived in both the A factor, concern orientation and the B factor, the expectation dimension. This significance was constant throughout each age group studied for the A concern factor. The B expectation factor variance was significant for age groups one and three. Cell scores increased in the direction of idiographic expectation and child concerns as the age decreased. However, the youngest group showed self concerns somewhat more often as their most severe problem.

Classifying the pilot kindergarten teachers by educational preparation and rearraying their Q-sort responses yielded significant F values for the B expectation factor between the two groups. The F ratio for educational preparation and A concern factor interaction was significant for the two groups. Within groups, the B effect, or expectations dimension, accounted for significant variance in the kinds of problems perceived by group one teachers. No other results for either group met the .05 criterion level of statistical significance. Group two teachers loaded on normative, or nomothetic concerns, whereas, group one teachers were more concerned for the individual and his personal needs.

The antecedent, teaching experience, had teachers classified into four levels of teaching background. Significant variance in the kinds of problems perceived in both main effects, A concern and factor B expectation factor, between the four groups was produced. The significant variance persisted in the A concern factor variance for group one, three, and four, the latter two being highly significant. B expectation factor variance was significant only for the last group, teaching experience group four. The latter two groups loaded more heavily on idiographic, child-centered problems.

Thus, variance between groups in perception of different kinds of problems was consistently significant for the B effect, or the expectation dimension. Significant variance was found also in the different kinds of problems perceived between all groups for the A concern factor except with the teacher groups classified by educational preparation. No significant interaction between main effects was found for any test.

CHAPTER IV

SUMMARY, CONCLUSIONS, RECOMMENDATIONS FOR FURTHER STUDY

I. INTRODUCTION

Modern concepts of educational supervision as a facilitating role demand that supervisors know what kinds of problems teachers face and understand the consequences of stress and conflict on teaching behavior. If supervisors are to facilitate improved instruction, then it is essential to understand problems as teachers perceive them, for these are the real problems of teaching affecting teaching behaviors as teachers cope with perceived conflicts.

The inescapable influence of these conflict coping behaviors of teachers on their pupils must be the ultimate concern as initial decisions and problem solving stances are found to vary among teachers. An understanding of the factors which provide motives for action in teacher-pupil relationships in the classroom are essential to the supervisory function.

When schools are initiating new programs or attempting curriculum revision, change itself creates some degree of stress for those personally involved in the process. Teachers must be enabled to effectively identify those situations which deserve priority in conflict resolution to perserve a healthy learning climate for pupils and teachers alike.

The supervisor, as a facilitator of change, is in a position to contribute to instructional staff skills in decision making. The identification of problems, the discovery of alternative solutions and the

consideration of probable outcomes should be performed with insights into the self-function in providing motives for action. Such insights allow problem prediction when antecedents to problems are exposed, thus guiding problem prevention activities.

The realistic assessment of these factors or antecedents to decisions underlying teaching behavior is particularly vital to some curriculum plans which rely on philosophical stances for their successful implementation with children. For example, inquiry strategies or open education strategies require a style of teaching based on beliefs about how children lean and develop. The pilot kindergarten programs were also conceptually based on a philosophy of openness and warmth in teaching styles which encouraged active pupil participation in discovery and perceptual skill development. More formalized skills such as those required in reading were not encouraged as necessary program goals for the kindergartens. Yet, goal perceptions varied significantly among the pilot teachers to suggest that conflicts with this philosophy did exist for some.

What factors are responsible for social perceptions that persist despite orientation activities to the contrary? That internal personality factors influence social perception is a theoretical question that has intrigued numerous theorists. This study represented an attempt to investigate the influence of attitudes, age, educational preparation and teaching experience as antecedents to the perception of problems by kindergarten teachers who were implementing a statewide pilot kindergarten program in Kentucky.

II. SUMMARY

The basic problem being investigated in this study was: How do certain conditions antecedent to the teaching act influence the kinds of problems perceived by teachers when implementing curriculum change? Specifically, the aim of this study was to examine the difference between the kinds of problems perceived by the teachers who implemented the Kentucky Pilot Kindergarten program during the 1973-74 school year and their attitudes toward teaching children. These attitudes were examined in terms of liberalism or traditionalism as reflected in scores above or below the mean for early childhood teacher norms on the Minnesota Teachers' Attitude Inventory. Differences were also examined between the kinds of problems perceived and the teachers' ages (classified by 35 years and less, 36 to 50 years, and 51 to 65 years of age); their educational preparation (classified into two categories, kindergarten endorsement with elementary certificate or kindergarten and elementary endorsement with secondary certificate in a subject area); and their teaching experience (classified by less than a year of experience, one or more years of experience in kindergarten, one or more years of experience in elementary school only, and one or more years in secondary experience in any combination of levels of school organization).

The 100 pilot program teachers were surveyed early in the fall of 1973 for ten anticipated and ranked problems. At the same time the MTAI was administered to the 100 pilot program teachers. A structured Q-sort (Appendix, p. 141) was designed from the anticipated problems ranked highest and most often. The Q-sort was then administered to each of the

teachers in May of 1974. Response for all data was received from each of the 100 pilot program teachers.

The Q-sorts for individuals were scored in groups as categorized in the hypotheses regarding the independent variables. The Q-scores were then assigned by computer to the separate items in the Q-sort to develop group sums for distribution, and the resulting scores from the group arrays were assigned to the appropriate cells in the theoretical structure. Each cell contained five replications of the semantic concepts, the expectation dimension and the concern orientation. Analysis of variance was computed for significant differences between the kinds of problems perceived by each group as categorized in the hypothesis. When significant F values were determined, the individual groups were analyzed for significant variance within a group to determine the extent of preference for different kinds of problems as denoted by the cells in the theoretic Q design (see Figure 1, p. 74).

The four null hypotheses which were projected and gave direction to this study and the findings that pertained to each are as follows:

H_1: There is no significant difference between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten units perceive in either the nomothetic or the idiographic dimension of behavior when compared with their attitudes as reflected in their scores on the Minnesota Teachers' Attitude Inventory.

When attitude was investigated as an antecedent to perception of teaching problems this null hypothesis was rejected by the data. When teachers were categorized by low, middle and high attitude scores and their group arrays of perceived problems were used to assign scores

to cells in the Q design for distinguishing kinds of problems, an analysis of variance of this grouped data resulted in significant differences between groups on both factors or main effects which distinguished the kinds of problems. Both the A concern factor and the B expectation factor accounted for group differences beyond the .01 significance level in the kinds of problems perceived. Concern factor A was the source of significant differences beyond the .01 level within groups two and three. Examination of the cell loadings indicated the higher the attitude scores the greater the loading on cells with items that involved personalization of roles or idiographic concerns. The opposite situation existed for those with low scores on the MTAI who loaded more heavily on the cells with items that involved socialization of individuals or nomothetic concerns. It should be noted, however, that all groups had somewhat higher scores in the idiographic realm. This was not unexpected since the numerous inservice programs provided for these teachers were focused on two matters: the resolution of common problems and indoctrination in open or idiographic teaching styles.

The A concern factor, or concern orientation, provided the source of the most significant variance. Concern for the child, consistent with idiographic teaching styles, was greatest among teachers with high MTAI scores. Concern for program success and recognition was greatest among teachers with low MTAI scores, although the variation between the A concern factor level means was only .08 level of significance for group one, a more heteriogeneous group in their choices. Dissonance theory suggested this type of position shifting might result from attempts to resolve conflicts between beliefs and prevailing practices.

H_2: There is no significant difference between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten units perceive in either the nomothetic or idiographic dimension of behavior when compared with their ages when classified by 20 to 35 years, 36 to 50 years, and 51 to 65 years of age.

When age was investigated as an antecedent to perception of teaching problems this null hypothesis was rejected. An analysis of variance resulted in significant differences in the kinds of problems perceived between the age groups. Both main effects factors were the source of variance between groups beyond the .01 level of significance.

The A concern factor, the concern orientation, was the stronger effect on both between groups and within groups differences in kinds of problems perceived (at or beyond .01 significance levels for all groups). The B expectation factor was also effective in distinguishing the kinds of problems perceived by age groups one and three at the .05 level of significance. The significance level for age group two was .12 and did not attain the criterion significant level of .05.

Cell loadings indicated the younger teachers generally scored higher on the cells in the idiographic expectation and child concern areas. The oldest group was more concerned with normative expectations, institutional demands and socialization of the child. The intermediate age groups showed the greatest concern for the child, whereas the youngest teacher was more concerned for themselves and for the child in idiographic dimensions.

H_3: There is no significant difference between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten Units

perceive in either the nomothetic or the idiographic dimension of behavior when compared with their educational preparation in categories of undergraduate majors in elementary teaching with kindergarten endorsement and secondary subject preparation with elementary and kindergarten endorsement.

The investigation of educational preparation as an antecedent to the perception of teaching problems resulted in the acceptance of this null hypothesis. The analysis of variance between kinds of problems perceived by the two groups was significant at the .05 level only for the expectations factor B. Only group one presented a significant difference also in the expectations dimension factor within a group. A significance level of .08 was attained by the B expectation factor variance within group two. Concern factor A did not account for significant variance either between groups (at .09 significance level) or within groups one and two, with F values at the .34 and .92 levels of statistical significance, respectively.

Although a significant difference existed for the teachers with original educational preparation for teaching the young child in the expectations dimension the data did not clearly indicate the direction of preference for the educational preparation group two. Therefore, comparison between the groups did not appear to be sufficiently supported to reject the hypothesis. However, a positive relationship between the educational preparation and the expectations dimension in problem perception existed near significance levels. This indicated that the teachers originally prepared to teach a secondary subject were more concerned with normative dimensions of behavior with stress on requirements of the

institution, the role and the expectation. The opposite preference distinguished a highly significant difference in the expectations of group one.

H_4: There is no significant difference between the kinds of problems which teachers in the 100 Kentucky Pilot Kindergarten Units perceive in either the nomothetic or the idiographic dimensions of behavior when compared with their teaching experience in categories of less than one year of experience, one or more years of kindergarten experience only, one or more years of elementary experience only, and one or more years of secondary experience combined with these levels of experience.

An investigation of teaching experience background as an antecedent to the perception of teaching problems when implementing a new program resulted in the rejection of this hypothesis. When teachers were categorized by their teaching experience into these four levels of experience, an analysis of variance of the problem perception scores between groups produced significant F values for both main effects factors. Factor A, the concern orientation factor, was responsible for significant differences between the kinds of problems perceived by the four groups at the statistical significance level of .0001, greatly exceeding the criterion level. Factor B, the expectation dimension factor, also accounted for a significant difference between kinds of problems perceived by the four groups when classified by teaching experience. The B expectation factor F value for the between groups scores was significant at the .0003 level, which also greatly exceeded the established criterion of .05.

Within the groups concern factor A accounted for significant variance for groups one, three and four at the .01 level, the .0001 level, and the .004 level of statistical significance, respectively. The B expectation factor accounted for significant variance within group four at the .004 level of significance. A nonsignificant but positive relationship existed for groups two and three in regard to variance attributed to expectation factor B. Cell scores indicated that those in group two, the experienced kindergarten teachers, were most heteriogeneous in their cell loadings. Teachers who had wider teaching experiences prior to this kindergarten teaching assignment loaded higher on cells in the idiographic area. This preference was particularly distinguished by the main effect concern factor A with concerns focused on the child, but expectations were high in the nomothetic area.

Thus the following findings related to the hypotheses which gave direction to the study, appeared justified.

1. Attitudes toward teaching children were antecedents that significantly affected the kinds of problems perceived by teachers when implementing new educational programs. Teachers who had low or traditional MTAI scores tended to see problems in the nomothetic frame of reference. Teachers with high or progressive MTAI scores tended to see problems in the idiographic frame of reference.

2. Age in teachers acted as an antecedent to perception of problems to significantly affect the kinds of problems perceived by teachers when implementing new educational programs. Older teachers tended to perceive problems in the nomothetic frame of reference and to center their concerns on the socialization of the child. Younger teachers,

although concerned also for their own personal needs, tended to see their conflicts in the idiographic frame of reference.

3. Teaching experience created an antecedent state that significantly affected the kinds of problems perceived by teachers when implementing new educational programs. Teachers with more varied teaching experiences tended to be less concerned with their own or institutional needs or expectations and to be more concerned with the child and the individual's personal needs.

4. Educational preparation did not necessarily constitute an antecedent condition which significantly affected the kinds of problems perceived by teachers when implementing new educational programs. Teachers originally prepared to teach younger children perceived problems in personalizing roles, whereas, teachers originally prepared to teach older children perceived problems in socializing the individual. This tendency was positive but not statistically significant.

5. The kinds of problems perceived by the teachers of the 100 Kentucky Pilot Kindergarten Units were most significantly distinguished by the concern orientation for all antecedents considered. A strong tendency to focus problems on the individual child was evident among all groups, but teachers varied in their perceptions of expectations held for the child.

6. The kinds of problems perceived by teachers of the 100 Kentucky Pilot Kindergarten Units differed significantly in their preference for problems in either the nomothetic or the idiographic dimensions of behavior when compared to their MTAI attitude scores, ages,

and their teaching experiences to suggest that teacher's perceived problems may be anticipated if not actually prevented by supervisors.

III. CONCLUSIONS

The results of this study lead to the following conclusions:

1. Cognitive dissonance or personal conflict is created for teachers who accept teaching positions in programs that rely on specific teaching styles which are not in agreement with firmly established perceptual patterns of those teachers prior to the assignment.

2. Teachers may contribute to their own perceived problems with inappropriate or non-effective teaching decisions due to inaccurate or biased perceptions.

3. Curriculum goals may be distorted or sacrificed altogether when programs are implemented by teachers whose teaching attitudes and goal perceptions conflict with the program requirements and goals.

4. Teachers see conflict in those situations or persons who fail to perform according to the teachers' expectations.

5. Of the antecedents to perception investigated in this study, those of teaching experience and age appeared to most strikingly influence the kinds of problems perceived by teachers.

IV. RECOMMENDATIONS FOR FURTHER STUDY

1. Investigations should be made into the teaching behavior of teachers exhibiting extremes in those antecedent conditions thus considered to determine the relationship of teaching styles to these antecedents to perception of problems.

2. Controlled studies should be conducted with teachers who must implement programs based on specific philosophies known to conflict with the teaching styles of some and to agree with the teaching styles of others to determine the effect of staff development activities in increasing or decreasing teacher decision-making skills that prevent dissonance.

3. The nature of dissonance or conflict resolution by teachers and the teaching decision-making skills should be analyzed for alternative strategies to facilitate proposed curriculum changes for instructional improvement.

4. A longitudinal study should be conducted on the continuity of problem perception by individual teachers over a number of years to determine the strength of the personal problem perception tendencies regardless of the external environmental situation at any particular time.

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APPENDIX

September 26, 1973

As a part of the total evaluation and research program to be carried out with the Pilot Kindergarten Program in Kentucky, you are requested to assist in supplying three items of data which are concerned with improving teaching conditions for teachers. The purpose of the study will be to determine matters that require special consideration before attaining ideal teaching conditions for the teacher as each teacher reports the situation affecting her personaly. You are asked to perform the following activities:

(1) The first step in assessing teaching conditions is to gain a measure of your reactions to your personal situation in your particular classroom. A frequently used inventory device, the Minnesota Teacher Attitude Inventory (MTAI), is enclosed for your responses. This inventory will require 20 to 30 minutes to complete on a separate answer sheet found inside the front cover of the MTAI booklet.

Your responses will be seen only by the researcher and will not become a part of your records. The results will be reported only for groups of anonymous teachers and you will not be identified in any way.

You may find some items difficult to answer immediately, but it is essential that you respond to every item. Careful thought about your preferences and your present teaching assignment should guide you in your responses. There are neither right or wrong answers, nor good or bad results. The final scores can only indicate your preferred style of teaching in your perception of an ideal situation.

When you have marked one response for each of the 150 items, please return the booklet and the answer sheet in the enclosed envelope with the other requested data.

(2) Please complete and enclose the personal profile found attached to the problem list.

(3) Please give your careful attention to analyzing your teaching situation to determine at least ten anticipated problems you expect to encounter this year. Return a list of these problems with the above data in the envelope provided.

In the spring you will be asked to complete this study by performing one last activity indicating your choices and feelings about your teaching conditions this year. Your cooperation and candidness will be appreciated inasmuch as your time is acknowledged to be at a premium.

Sincerely,

Imelda D. Van Fleet

IVF;lsr

Enclosures

POTENTIAL PROBLEM AREAS IN PILOT KINDERGARTEN CLASSROOMS

In the spaces provided, please list at least ten (10) brief statements of problems that you expect to encounter considering your present situation as you have found it to be thus far. There is no limit or restriction on the type of problems to be listed as long as it concerns you. Use the back of the page if additional space is needed. These statements will be seen only by the researcher and will be reported as anonymous group returns.

When you have listed at least ten (10) anticipated problems, then you are asked to rank them according to importance to you from one (1) for the most serious to ten (10) for the least serious. Place the rank order numbers in the boxes before each space.

☐ Problem Statement:

☐ Problem Statement:

☐ Problem Statement:

☐ Problem Statement:

☐ Problem Statement:

☐ Problem Statement:

Your Name _____

CHECK APPROPRIATE SECTION FOR DATA BELOW.

Your age:

1. 20 - 35 years ☐
2. 36 - 50 years ☐
3. 51 - 65 years ☐

Your Educational Preparation:

1. Elementary major with kindergarten endorsement ☐
2. Secondary subject area with elementary and kindergarten endorsement ☐

Your Teaching Experience:

1. No previous experience or less than a full school year ☐
2. One or more years in kindergarten ☐
3. One or more years in elementary only ☐
4. One or more years in secondary teaching with any combination above ☐

(a e) 1 Gaining acceptance for the kindergarten program as a valid part of the academic program.	(b f) 10 Making some children follow instructions and listen to me.
(a f) 2 Communicating with the principal about program needs and progress.	(b e) 11 Making children be neat and responsible with books and materials in school.
(a f) 3 Operating Effectively and congenially within an organizational framework where disagreement and misunderstanding about the kindergarten program existed.	(b e) 12 Instilling habits of punctuality and regular attendance in children and disinterested parents.
(a f) 4 Convincing others of the values of the kindergarten program.	(b e) 13 Teaching children to have manners and to respect adults.
(c f) 5 Communicating with parents in reports or in conferences.	(a g) 14 Controlling the problem children who are destructive and aggressive or in other ways disrupt the class by having their own way.
(a e) 6 Keeping classroom supplies orderly and stored properly.	(a g) 15 Dealing with children from other classes who interfere with the kindergarten program in various ways.
(c f) 7 Working with administrators and supervisors who should have given their support and direction to the kindergarten program.	(c g) 16 Handling all the immature children who cling to me too much.
(a e) 8 Obtaining sufficient and effective materials, equipment, and facilities for a good kindergarten program.	(c g) 17 Dealing with childish shortcomings such as tattling, reticence, toilet training, insecurity, inattentiveness, showing off, etc., that demand so much of my personal time.
(a e) 9 Securing enough money to run a proper kindergarten program.	

FIGURE 2

PROBLEM STATEMENTS

(c e) 18
Being personally adequate to doing the kind of job that is expected of me as the kindergarten teacher without enough aides or parental help.

(c g) 19
Scheduling the time to allow myself a breathing spell during the day and to get ready for the classes.

(c e) 20
Finding sufficient resources, referral services, inservice workshops and other self-improvement situations to enable me to be thoroughly sure of myself in setting up and/or implementing a kindergarten curriculum this year.

(d e) 21
Keeping the disinterested child caught up with his age group.

(b f) 22
Keeping overactive, talkative children quiet and working.

(c e) 23
Making children want to achieve more.

(c e) 24
Evaluating and keeping up with each child's achievement level.

(c f) 25
Diagnosing and referring pupil who seem too slow, too immature, or too disturbed for the regular class.

(c e) 26
Meeting expectations which are held by some teachers, principals, and parents for preparing my class for first grade.

(b e) 27
Getting twenty children ready for first grade.

(a e) 28
Managing to teach in all of the areas listed on the evaluation form from the state.

(b f) 29
Controlling our noise and activities to avoid disturbing other classes.

(a f) 30
Keeping on a schedule to allow time to cover all the things I have to do.

(c g) 31
Developing the ability to distinguish between immature behavior and emotionally disturbed behavior.

(c g) 32
Determining the most appropriate strategy to complement each child's learning style.

(d f) 33
Developing in each child a sense of ownership and pride in belongings that still allows him to share willingly.

(d g) 34
Helping the slow or rejected child protect himself from and gain acceptance within peer groups.

(a g) 35
Refining the understanding or meaning of experiences and concepts for each child to help him understand his place in his environment.

(b g) 36
Obtaining adequate adult attention for each child through the use of volunteers, aides, or interns.

(d g) 37
Understanding and providing for each child's emotional needs.

(a g) 38
Providing adequate space and equipment for play and physical activities to meet each child's developmental needs.

(a g) 39
Providing children with adequate opportunities for expression of musical, artistic, scientific or other particular talents or skills.

(b f) 40
Helping the kindergarten children feel accepted and valued by the older children in the school.

(b g) 41
Helping parents to accept their child's shortcomings without embarrassment, defensiveness, or resentment.

(b f) 42
Finding ways of working as an accepted staff member with colleagues and administrators.

(d e) 43
Devising ways to make essential knowledge interesting to even the poorest learner.

(c f) 44
Helping the slow learner to discover areas of strength in himself.

(c f) 45
Developing rapport with the children and their parents.

(c f) 46
Knowing almost instinctively the best instant response for each little crisis that occurs daily with young children.

(d f) 47
Allowing each child to have his fair share of undivided time and attention at some point each day.

(b g) 48
Discovering ways to deal effectively with selfish, aggressive behavior.

(d f) 49
Helping the shy or socially different child to ease into group activities in a manner that will improve his acceptance by the group.

(d e) 50
Determining the underlying causes of undesirable behavior and finding ways to help children behave better.

(d e) 51
Providing facilities for healthy and acceptable outlets for excess energy and exuberance both indoors as well as outdoors.

(d g) 52
Helping immature and dependent children to feel secure enough to explore independently.

(b g) 53
Involving the parents in the classroom activities to foster parent interest and feelings of family pride and unity.

(d g) 54
Facilitating and nurturing creativity, interests and learning strenghts discovered in each pupil.

(d g) 55 Devising ways to allow each child to experience success daily or to quickly balance failure with success to soften the impact of failure.	
(a f) 56 Creating interesting activities to motivate and improve learning.	
(d e) 57 Enabling each child to improve over his previous attainment levels.	
(b e) 58 Helping children to understand what is expected of them and to feel a sense of freedom within a reasonable framework of rules governing acceptable conduct.	
(d f) 59 Helping children to realize their own needs while becoming aware and considerate of the needs of others.	
(b g) 60 Developing learner curiosity in seemingly disinterested children.	

Factor A: Concern Orientation

Socialization of Individual

cell 1 ae	Institutional	2 be	Group	3 ce	Self	4 de	Child
Nomothetic	items: 1, 6, 8, 9, 28	Nomothetic	items: 11, 12, 13, 27, 58	Nomothetic	items: 18, 20, 23, 24, 26	Nomothetic	items: 21, 43, 50, 51, 57
5 af	Institutional	6 bf	Group	7 cf	Self	8 df	Child
Transactional Expectations	items: 2, 3, 4, 30, 56	Transactional Expectations	items: 10, 22, 40, 29, 42	Transactional Expectations	items: 5, 7, 25, 45, 46	Transactional Expectations	items: 33, 47, 49, 59, 44
9 ag	Institutional	10 bg	Group	11 cg	Self	12 dg	Child
Idiographic Needs	items: 14, 15, 35, 38, 39	Idiographic Needs	items: 36, 41, 48, 53, 60	Idiographic Needs	items: 16, 17, 19, 31, 32	Idiographic Needs	items: 34, 37, 52, 54, 55

Factor B: Expectation Dimension

Personalization of Roles

FIGURE 3

A PARADIGM FORM OF Q-SORT DESIGN FOR DISTINGUISHING KINDS OF PROBLEMS PERCEIVED

Q-SORTING INSTRUCTIONS

This packet contains statements which describe problems in teaching. As you arrange them in a rank order to importance or significance to you, it is expected that you will consider the statements with respect to problems you have actually experienced or been concerned about during this past year in the Pilot Program.

SORTING INSTRUCTIONS

1. Lay out the "Pile" cards in numerical order with #1 to your left.
2. Read the packet of statements quickly in order to grasp a general idea of their contents. As you read, divide them into 3 piles with the left being for those with which you agree, the middle being for the statement for which you feel undecided or neutral, and the right pile being for the statement for which you feel least agreement.
3. After this rough screening of problems, proceed to separate the piles into the final distribution to satisfy both your judgements and the exact number called for in each pile. Do not worry too much immediately about ranking the statements within each pile, however, since the ranking of the piles themselves is more important as you begin. Develop the sequence of agreement within piles after this ranking is completed.
4. When you have finished sorting the cards into nine (9) piles and with the appropriate number indicated on each "Pile Card," then collect the piles of statements with the pile card on top

of each stack so that #9 is on the bottom and in sequence following to cause #1 to be on top. Inasmuch as possible the pile cards should now represent your perception of their relative importance to you as experienced in the year just past.

5. Place the Identification card on top, bind all together with the rubber band and mail back in the envelope provided immediately.

TABLE XXV

SAMPLE ARRAY OF PERCEIVED PROBLEMS BY TEACHERS IN AGE GROUP TWO

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	55	37	38	14	3	1	16	2	15
	56	47	39	20	4	6	17	7	30
		58	50	24	5	9	22	29	
			51	33	8	10	27		
			52	34	18	11	40		
			59	35	21	12	42		
				43	23	13			
				48	25	19			
				49	31	26			
				54	32	28			
				60	36	45			
					41				
					44				
					46				
					53				
					57				

TABLE XXVI

SAMPLE SCORE MATRIX OF PERCEIVED PROBLEMS OF TEACHERS IN AGE GROUP TWO

cell	ae	af	ag	be	bf	bg	ce	cf	cg	de	df	dg	
row	1	5	9	2	6	10	3	7	11	4	8	12	row
1	3	1	5	3	3	4	4	4	2	4	5	5	1
2	3	4	0	3	2	4	5	1	2	5	7	7	2
3	4	4	5	3	2	5	4	4	3	6	5	6	3
4	3	0	6	2	1	4	5	3	4	6	6	5	4
5	3	8	6	7	2	5	3	4	4	4	4	8	5
sums	16	17	22	18	10	22	21	16	15	25	27	31	240

TABLE XXVII

A PARADIGM FOR ILLUSTRATING SOURCE OF COLUMN SUMS FROM Q-SORT SCORE MATRIX OF TEACHING EXPERIENCE SAMPLE GROUP TWO

	Factor A: Concern Orientation				
Factor B: Expectation Dimension	Institution(a)	Group(b)	Self(c)	Child(d)	Factor B Row Sums
Level e: Nomothetic Expectations	16	18	21	25	80
Level f: Transactional Expectations	17	10	16	27	70
Level g: Idiographic Expectations	22	22	15	31	90
Factor A Column Sums	55	50	52	83	240

TABLE XXVIII

MODEL ARRAY OF ATTITUDE GROUP ONE

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	8	14	37	10	9	4	2	3	1
	17	44	43	18	11	5	7	30	15
		48	47	20	13	6	26	40	
			50	24	21	12	42		
			55	31	22	16	45		
			56	32	23	19	53		
				33	27	25			
				34	38	28			
				35	39	29			
				54	41	36			
				60	46	49			
					51				
					52				
					57				
					58				
					59				

TABLE XXIX

MODEL ARRAY OF ATTITUDE GROUP TWO

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	37	32	24	8	4	1	3	26	28
	50	44	43	33	6	2	7	27	30
		47	44	35	9	5	15	45	
		56	52	39	12	10	16		
			54	41	13	11	29		
			59	48	14	17	40		
				49	18	19			
				51	20	22			
				55	21	42			
				58	23	46			
				60	25	53			
					31				
					34				
					36				
					38				
					57				

TABLE XXX

MODEL ARRAY OF ATTITUDE GROUP THREE

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	50	37	39	14	5	1	3	2	15
	59	47	48	24	10	4	8	7	42
		58	52	31	12	6	9	27	
			54	33	13	11	16		
			55	34	17	19	22		
			56	35	18	20	40		
				38	23	21			
				41	25	28			
				49	26	29			
				51	32	30			
				53	43	36			
					44				
					45				
					46				
					57				
					60				

TABLE XXXI

MODEL ARRAY OF AGE GROUP ONE

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	37	44	14	8	9	4	1	7	3
	50	47	24	31	10	5	2	15	30
		59	32	33	13	6	16	28	
			48	34	17	11	40		
			54	35	18	12	42		
			56	39	20	19	45		
				43	21	22			
				52	23	26			
				55	25	27			
				58	36	29			
				60	38	53			
					41				
					46				
					49				
					51				
					57				

TABLE XXXII

MODEL ARRAY OF AGE GROUP TWO

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	55	37	38	14	3	1	16	2	15
	56	47	39	20	4	6	17	7	30
		58	50	24	5	9	22	29	
			51	33	8	10	27		
			52	34	18	11	40		
			59	35	21	12	42		
				43	23	13			
				48	25	19			
				49	31	26			
				54	32	28			
				60	36	45			
					41				
					44				
					46				
					53				
					57				

TABLE XXXIII

MODEL ARRAY OF AGE GROUP THREE

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	37	32	8	33	4	3	1	15	26
	56	38	24	34	6	7	2	28	27
		54	41	35	11	10	5	30	
			43	47	12	18	9		
			44	48	13	19	16		
			55	49	14	20	29		
				50	17	21			
				51	23	22			
				52	25	36			
				58	31	45			
				60	39	46			
					40				
					42				
					53				
					57				
					59				

TABLE XXXIV

MODEL ARRAY OF EDUCATION PREPARATION GROUP ONE

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	50	47	24	8	9	1	2	3	15
	56	55	32	14	10	4	16	7	30
		59	44	33	11	5	26	28	
			48	35	13	6	40		
			52	38	17	12	42		
			54	39	18	19	45		
				43	20	22			
				49	21	27			
				51	23	29			
				58	25	36			
				60	31	53			
					34				
					37				
					41				
					46				
					57				

TABLE XXXV

MODEL ARRAY OF EDUCATIONAL PREPARATION GROUP TWO

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	8	14	9	5	4	3	2	15	1
	36	50	20	11	6	7	16	40	59
		58	24	12	13	10	22	55	
			37	18	21	17	27		
			38	19	23	28	30		
			41	33	25	29	34		
			47	35	26	39			
				42	31	45			
				53	32	48			
				56	43	49			
				60	44	52			
					46				
					51				
					54				
					57				

TABLE XXXVI

MODEL ARRAY OF TEACHING EXPERIENCE GROUP ONE

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	37	48	8	9	4	1	3	15	28
	50	56	14	10	12	2	5	40	30
		59	35	20	13	6	7	45	
			44	31	17	11	16		
			47	32	18	19	22		
			54	33	23	21	42		
				39	24	26			
				43	25	27			
				52	34	29			
				58	36	38			
				60	41	53			
					46				
					49				
					51				
					55				
					57				

TABLE XXXVII

MODEL ARRAY OF TEACHING EXPERIENCE GROUP TWO

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	8	24	34	14	4	1	7	2	26
	32	50	43	20	5	3	15	10	30
		54	44	35	6	11	16	19	
			47	38	9	13	22		
			56	39	12	17	27		
			58	41	18	21	29		
				48	23	28			
				49	25	31			
				51	36	33			
				55	37	40			
				60	42	45			
					46				
					52				
					53				
					57				
					59				

TABLE XXXVIII

MODEL ARRAY OF TEACHING EXPERIENCE GROUP THREE

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	55	37	24	31	5	1	2	4	3
	59	47	33	32	10	6	9	15	7
		50	35	34	11	8	20	42	
			44	39	12	16	26		
			52	41	13	27	29		
			56	43	14	28	36		
				49	17	30			
				51	18	40			
				54	19	45			
				58	21	46			
				60	22	53			
					23				
					25				
					38				
					48				
					57				

TABLE XXXIX

MODEL ARRAY OF TEACHING EXPERIENCE GROUP FOUR

DISTRIBUTION MATRIX:

Pile	1	2	3	4	5	6	7	8	9
Score	8	7	6	5	4	3	2	1	0
	30	37	14	8	4	7	2	26	1
	56	47	33	24	6	13	3	38	27
		55	50	31	10	16	5	45	
			51	32	11	19	9		
			52	34	15	20	12		
			54	39	17	21	40		
				41	18	25			
				48	22	28			
				58	23	29			
				59	35	36			
				60	43	42			
					44				
					46				
					49				
					53				
					57				

VITA

Imelda Dorsey Van Fleet was born August 13, 1930 at Ten Mile, Tennessee. She was graduated with honors from Hillsborough High School in Tampa, Florida in 1949. From 1949 until 1950 she attended the University of Tampa. After transferring, she was graduated with honors from the University of Florida in Gainesville in 1953. Following graduation she taught schools in Tampa, Plant City, St. Petersburg, and Clearwater, Florida. She earned the degree Master of Science in 1960. She was a guidance counselor and dean of girls in Clearwater, until 1968. She was counselor at the University of Florida Laboratory School, P. K. Yonge, for several years. Since that time she enrolled in the Graduate School at the University of Tennessee and until the present time has pursued her work toward the degree Doctor of Education. In the mean time, she has also served as an elementary principal in Tennessee and as a general curriculum specialist with the Kentucky Department of Education.

Imelda D. Van Fleet is married to Donald S. Van Fleet, Ed.D. and is the mother of two daughters, Susan and Annette. She is a member of Phi Kappa Phi.