

DUTIES PERFORMED BY PARAPROFESSIONALS  
AND THE RELATIONSHIP OF SELF - CONCEPT  
AND DOGMATISM

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This is to certify that the

thesis entitled

DUTIES PERFORMED BY PARAPROFESSIONALS AND THE  
RELATIONSHIP OF SELF-CONCEPT AND DOGMATISM

presented by

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has been accepted towards fulfillment  
of the requirements for

PhD degree in Educational Administration

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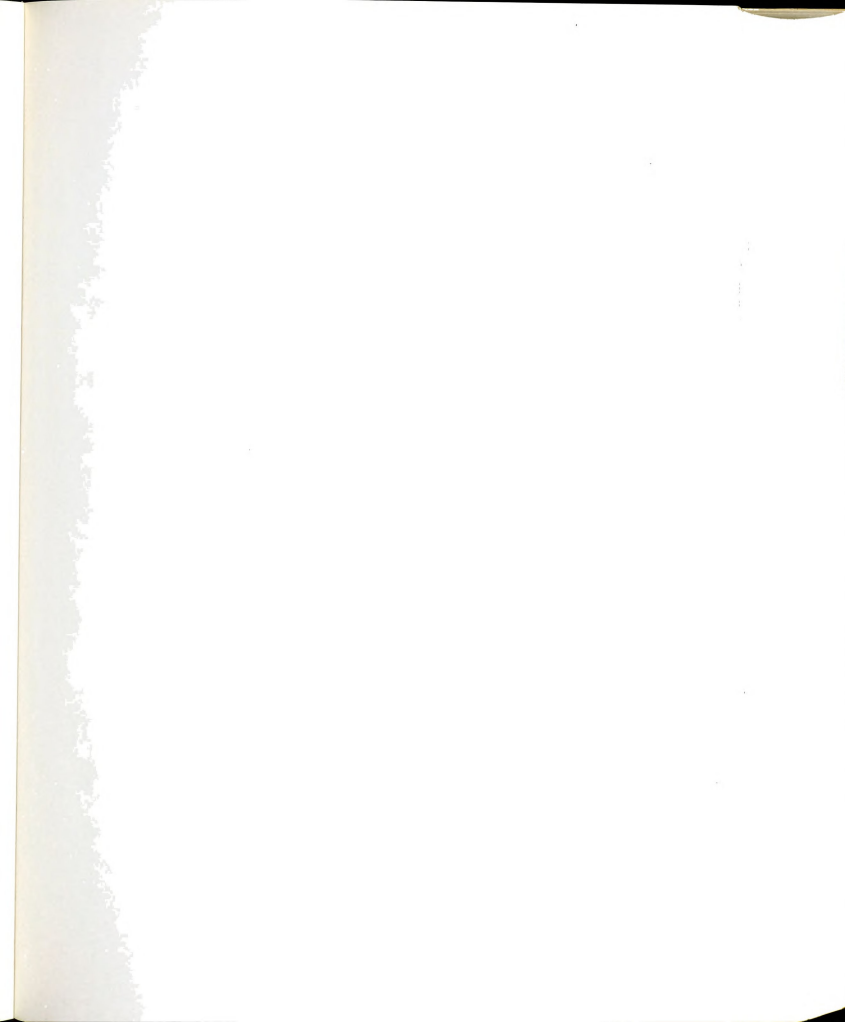
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## ABSTRACT

### DUTIES PERFORMED BY PARAPROFESSIONALS AND THE RELATIONSHIP OF SELF-CONCEPT AND DOGMATISM

By

Ethan B. Janove

A three-phase study was conducted to determine the specific roles and duties aides were performing; to ascertain changes in the performance of duties by aides; to assess the sentiments of aides and teachers; and to examine the relevancy of self-concept and dogmatism as important variables in the performance of specific duties by aides. A rationale was developed that was based in perceptual psychology and contended that aides would perform increasing numbers of teaching acts as a part of their duties.

#### Phase I--Survey of Funded Proposals

Thirty-six Middle Cities school districts were involved. The roles, tasks, and duties of aides and teachers were described and prescribed differently in each school district.

#### Phase II--Interviews

Forty-nine interviews were conducted with superintendents, principals, trainers, teachers, and aides in seven selected, representative Middle Cities school districts. The presence, value, and positive effects of aides was stressed almost unanimously. A definite trend toward teaching activities in the performances of aides was noted.

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### Phase III--Quantification

Thirteen teams of one teacher and one aide employed in one elementary school in a Middle Cities Project constituted the sample used to ascertain whether aides performed the thirty-nine a) tasks identified as teacher only, b) learning reinforcement activities, c) planning duties, d) self-assessment functions, and e) home counseling tasks; to determine the sentiments of the aides; and to examine the relevancy of self-concept and dogmatism.

Aide performances and sentiments were correlated with the self-concepts and dogmatic attitudes of aides, teachers, and a team measure of self-concept and dogmatism. Multiple regression equations were developed correlating the three measures of self-concept with each dependent variable. Individual correlations were conducted. The same procedure was used with dogmatism.

Alpha was set at .05 and the following research hypotheses were supported:

Positive changes occurred in the self-concepts of the total group.

Self-concept was negatively correlated with dogmatism for the total group of project personnel.

Self-concept was negatively correlated with dogmatism for the group of aides.

Aides with more positive self-concepts performed a greater frequency of learning reinforcement activities than aides with lower self-concepts.

A greater frequency of planning activities were performed by aides with high self-concepts, aides with teachers with high

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self-concepts, and aides or teams with high team self-concept scores, than planning activities performed by the respective personnel with lower self-concepts.

The aides' self-concepts and the team self-concept scores each attained a significant, positive correlation with planning activities.

The small n, afforded unstable correlations and appeared to cause a loss of significance in multiple equations. Several hypotheses achieved the .20 level; some almost reached a statistically significant level in the opposite direction.

Aides' self-concept appeared to be more significant than the teachers' in some areas, but not all. Teachers' TSCS and RDS scores correlated in the unpredicted direction more often than TSCS and RDS scores of the aides.

Planning Activities correlated most significantly with aides' TSCS, and all activities in Planning were teacher only--lending support to the rationale and contention of the study.

### Conclusion

Although not unequivocally, the results indicated that aides were performing an increasing number of teaching duties and that self-concept deserved further investigation.





DUTIES PERFORMED BY PARAPROFESSIONALS AND THE  
RELATIONSHIP OF SELF-CONCEPT AND DOGMATISM

by  
Ethan B. Janove

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## CHAPTER I

### INTRODUCTION

#### Background

Reference was made to teacher aides as early as 1807 when Dr. Andrew Bell published the results of a team teaching experiment at Egmore.<sup>1</sup> From the time of Dr. Bell's early study until recently, aides or volunteers have been used sparingly in the schools. So rare were aides that it was reported: "the first teacher aides were used in the early 1940's because qualified teachers were not available nor were the funds with which to pay them."<sup>2</sup> The Bay City Project in 1952 "began the modern teacher aide movement,"<sup>3</sup> but the use of teacher aides was limited until the advent of the Elementary and Secondary Education Act of 1965 and the Economic Opportunity Act.<sup>4</sup> In 1968 the Michigan legislature provided funds to school districts "to reduce pupil-adult classroom ratios in schools."<sup>5</sup> The law reimbursed eligible school districts for direct salary costs of professional and paraprofessional personnel.

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<sup>1</sup> Teacher Aides in the Classroom, A New England Study. The New England Educational Assessment Project (Providence, Rhode Island: November, 1967), p. 8.

<sup>2</sup> A Look at Teacher Aides and Their Training. Metropolitan Educational Research Association (East Lansing, Michigan, 1968), p. 1.

<sup>3</sup> Ibid.

<sup>4</sup> Teacher Aides in the Classroom, p. 7.

<sup>5</sup> Michigan, State School Aid Act of 1968, sec. 3.

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### The Problem

In Michigan the federal and state governments have influenced a major change in the education process by encouraging the use of paraprofessionals. Typical of the questions that arose with the entrance of non-trained, non-certified adults in the classroom were, "specifically what can these aides do?" "What should they do?" and "What do they actually do?"

Aides are being employed to improve school situations and to provide jobs for people in financially depressed areas. The increasing number of uncertified adults entering classrooms makes the question of their duties more critical and calls for research as to their qualifications, training, and the relationships developed between aides and teachers and between aides and students.

### Purpose of the Study

It was the author's purpose in this study to add information to the growing body of knowledge related to paraprofessionals by answering the following questions.

1. What are the specific duties and tasks being performed by paraprofessionals?
2. Are paraprofessionals performing tasks that are considered to be "teacher only" tasks?
3. What are the changes and/or trends in the role and duties of paraprofessionals?
4. What kind of emotions and attitudes are generated by the use of paraprofessionals?



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5. Are self-concept and/or dogmatic attitudes important enough variables in the performance of duties by aides to warrant further research?

This study was an attempt to determine the types of duties aides actually performed, problems that arose in the teacher/paraprofessional relationship, progressive changes in the role of the aide, and the possible relationship between self-concept and/or dogmatic attitudes and the performance of paraprofessional duties.

There were three phases or aspects to the study:

1. A survey of the proposals of school districts funded under Section 3, 1968 Michigan School Aid Act. The survey identified the number of professional and paraprofessional people to be employed in Middle Cities Projects, the settings in which they would work, and the types of duties expected of the paraprofessionals.
2. Interviews with personnel associated with several funded districts. The interviews were carried out to identify the original duties aides performed, changes in these duties, problems involved, and aide characteristics deemed helpful.
3. An investigation of one Middle Cities project to determine if aides were performing tasks usually considered to be "teacher only" tasks, and to see if aides were performing duties related to home counseling, learning reinforcement, self-assessment, and planning. An assessment of the attitudes and feelings of the

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teachers and aides were included in the study. The duties were then correlated with self-concept and dogmatic attitudes to see if these variables were of significant relevance in the performance of aide duties to merit further research.

### Hypotheses

Phase III, the investigation of one Middle Cities project was the only aspect of the study for which hypotheses were formed.

1. There would be positive changes during the course of the project in the self concepts of
  - a. the total group of teachers and aides
  - b. the teachers group
  - c. the aides group
2. There would be negative changes during the course of the project in the dogmatic attitudes of
  - a. the total group of teachers and aides
  - b. the teachers group
  - c. the aides group
3. There would be negative correlations between the self-concepts and dogmatic attitudes of
  - a. the total group of teachers and aides
  - b. the teachers group
  - c. the aides group
4. A greater frequency of acts related to the teaching process would be demonstrated by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts

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- b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts
- 5. A greater frequency of acts related to learning reinforcement activities would be performed by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts
  - b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts
- 6. A greater frequency of acts related to planning activities would be performed by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts
  - b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts
- 7. A greater frequency of acts related to home counseling duties would be performed by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts

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- b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts
8. A greater frequency of acts related to self-assessment activities would be performed by aides who
- a. indicated more positive self-concepts than aides who indicated less positive self-concepts
  - b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts
9. More positive feelings would be demonstrated by aides who
- a. indicated more positive self-concepts than aides who indicated less positive self-concepts
  - b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts
10. Closer similarities of perceptions would be found in teams whose
- a. aides indicated more positive self-concepts than teams whose aides indicated less positive self-concepts
  - b. teachers indicated more positive self-concepts than teams whose teachers indicated less positive self-concepts



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- c. combined self-concepts were higher than teams whose combined self-concepts were lower

.. A greater frequency of acts related to the teaching process would be demonstrated by aides who

- a. indicated less dogmatism than aides who indicated more dogmatism
- b. worked with teachers who indicated less dogmatism than aides who worked with teachers who indicated more dogmatism
- c. worked on teams with lower combined dogmatism than aides who worked on teams with higher combined dogmatism

2. A greater frequency of acts related to learning reinforcement activities would be performed by aides who

- a. indicated less dogmatism than aides who indicated more dogmatism
- b. worked with teachers who indicated less dogmatism than aides who worked with teachers who indicated more dogmatism
- c. worked on teams with lower combined dogmatism than aides who worked on teams with higher combined dogmatism

. A greater frequency of acts related to planning activities would be performed by aides who

- a. indicated less dogmatism than aides who indicated more dogmatism

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- b. worked with teachers who indicated less dogmatism than aides who worked with teachers who indicated more dogmatism
- c. worked on teams with lower combined dogmatism than aides who worked on teams with higher combined dogmatism

14. A greater frequency of acts related to home counseling duties would be performed by aides who

- a. indicated less dogmatism than aides who indicated more dogmatism
- b. worked with teachers who indicated less dogmatism than aides who worked with teachers who indicated more dogmatism
- c. worked on teams with lower combined dogmatism than aides who worked on teams with higher combined dogmatism

15. A greater frequency of acts related to self-assessment activities would be performed by aides who

- a. indicated less dogmatism than aides who indicated more dogmatism
- b. worked with teachers who indicated less dogmatism than aides who worked with teachers who indicated more dogmatism
- c. worked on teams with lower combined dogmatism than aides who worked on teams with higher combined dogmatism



6. More positive feelings would be demonstrated by aides who
  - a. indicated less dogmatism than aides who indicated more dogmatism
  - b. worked with teachers who indicated less dogmatism than aides who worked with teachers who indicated more dogmatism
  - c. worked on teams with lower combined dogmatism than aides who worked on teams with higher combined dogmatism
7. Closer similarities of perceptions would be found in teams whose
  - a. aides indicated less dogmatism than teams whose aides indicated more dogmatism
  - b. teachers indicated less dogmatism than teams whose teachers indicated more dogmatism
  - c. combined dogmatism was lower than teams with higher combined dogmatism

This study began with a survey of the proposals of all Middle Cities projects to determine the number of aides and the duties they were expected to perform. Interviews were conducted in several of the project schools to determine the duties actually performed, and to assess the sentiments, feelings, and problems involved in the programs. The study concluded with a quantification of specific duties in one project, and a comparison of the relationship between the duties of aides and self-concept and/or dogmatism.

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Underlying Theory

The researcher's major contention in this study was that aides would become more like teachers as they worked with teachers in the projects. It seemed likely that aides would begin by performing duties that were primarily routine, clerical, and custodial in nature; but as they became more experienced they would undertake more and more responsibilities and duties considered to be part of the teaching process--planning, tutoring, working with groups, and conferring with parents.

The contention that aides would behave similarly to teachers was based on two assumptions:

1. Aides perceive teachers as having higher status and achieving greater rewards through their performance of professional duties.
2. The values placed on activities such as working directly with students and/or parents, planning, and either introducing or reinforcing concepts are higher than those values associated with clerical, custodial, and routine duties.

The contended trend from clerical duties to "teaching" duties stemmed from the investigator's experience working with aides, and was based in the theoretical framework of perceptual psychology.

Central to this study was the relationship between self-concept and the growth and development of the individual. The pattern of growth roughly parallels the hierarchy of needs described by McGregor, Maslow and other phenomenologists. While



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the terminology differs from writer to writer, there is general consensus that basic needs are primarily physiological in nature with social needs and egoistic needs following on a higher level.

Another point of agreement is that lower level needs must be satisfied before higher level needs are activated. Once satiated, the lower ordered needs no longer serve as motivators; instead the activated unmet higher ordered needs become the motivators of behavior. McGregor describes the hierarchy thus:

Human needs are organized in a series of levels--a hierarchy of importance. At the lowest level, but preeminent in importance when they are thwarted, are the physiological needs. Man lives by bread alone, when there is no bread. Unless the circumstances are unusual, his needs for love, for status, for recognition are inoperative when his stomach has been empty for a while. But when he eats regularly and adequately, hunger ceases to be an important need. The sated man has hunger only in the sense that a full bottle has emptiness. The same is true of the other physiological needs of man--for rest, exercise, shelter, protection from the elements. . . .<sup>1</sup>

When the physiological needs are reasonably satisfied, needs at the next higher level begin to dominate man's behavior--to motivate him. These are safety needs, for protection against danger, threat, deprivation. Some people mistakenly refer to these as needs for security. However, unless man is in a dependent relationship where he fears arbitrary deprivation, he does not demand security. The need is for the "fairest possible break." When he feels threatened or dependent, his greatest need is for protection, for security.

When man's physiological needs are satisfied and he is no longer fearful about his physical welfare, his social needs become important motivators of his behavior. These are such needs as those for belonging, for association, for acceptance by one's fellows, for giving and receiving friendship and love. . . .<sup>2</sup>

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<sup>1</sup> Douglas McGregor, The Human Side of Enterprise (London: McGraw-Hill Book Company, Inc., 1960), p. 36.

<sup>2</sup> Ibid., p. 37.

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Above the social needs--in the sense that they do not usually become motivators until lower needs are reasonably satisfied--are the needs of greatest significance to management and to man himself. They are the egoistic needs and they are of two kinds:

1. Those that relate to one's self-esteem; needs for self-respect and self-confidence, for autonomy, for achievement, for competence, for knowledge.
2. Those that relate to one's reputation: needs for status, for recognition, for appreciation, for the deserved respect of one's fellows.

Unlike the lower needs, these are rarely satisfied; man seeks indefinitely for more satisfaction of these needs once they have become important to him. . . .<sup>1</sup>

Finally--a capstone, as it were, on the hierarchy--there are the needs for self-fulfillment. These are the needs for realizing one's own potentialities, for continued self-development, for being creative in the broadest sense of that term.<sup>2</sup>

The contention that aides would become more like teachers as projects continued was based on the idea that aides would increase in competence, satisfy lower level needs; be motivated by higher level needs; and therefore perform higher level acts, i.e., teaching acts.

#### Progression of Teacher-Aide Events

The following progression of teacher-aide events illustrates what generally occurs when teachers and aides work together; the order may vary but the components remain rather consistent. The progression parallels the need hierarchy. At times, the process is aborted when personality clashes occur, finances run out, or the prescription of rules prevents the successful

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<sup>1</sup> Ibid., p. 38.

<sup>2</sup> Ibid., p. 39.

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pletion of the project. The four steps described outline a general process which occurred over a period of five years in different schools studied.

In the first school, aides were hired to perform a specific set of duties; they graded work sheets and tests, kept records, and occasionally helped a student locate materials. As time progressed, aides began to encourage children, to help them with their work, and to answer their questions. Teachers and aides began to discuss individual children, and plan more effective learning situations for them. Thus, what started as a limited, prescribed role evolved into a partnership between teacher and aide.

Aides were employed in the second school "to assist the teacher." While the role was neither defined nor prescribed, the process was generally the same. Aides began by performing clerical, custodial, and routine tasks. At the end of the year many of the aides were operating as team members with their teacher partners.

The teacher-aide situations described above were made by observation. No attempt was made to organize, or systematize, the observations. However, they provided the impetus for the development of the theoretical model presented below.

#### Stage One--Teacher and Aide Confront Each Other

The teacher and the aide usually enter the situation somewhat hesitant, fearful, and distrustful. Both are apprehensive and often adopt defensive behavior mechanisms--overconfidence, boastfulness, or on the other end of the continuum--

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shyness. Regardless of the behavior adopted, each seems to be asking himself "Am I really competent to cope with this new situation?" It is the threat to their basic needs--their adequacy that appears to motivate their behavior.

The first assignments given to the aide by the teacher are usually simple, direct, and routine. "Correct these tests." "Help the children button their clothes." There is little risk involved for either the teacher or the aide in these initial involvements. Teachers find they can direct another adult, and aides find they can perform the tasks requested. Threats to personal adequacy are reduced. The safety needs, for protection against danger, threat, and deprivation are met, and the social needs become motivators of behavior.

#### Stage Two--Aides Given Wider Range of Duties

In the second stages aides begin to work directly with students--reinforcing the teachers' activities by encouraging, listening, and offering friendship and understanding to the students. New dimensions of their roles and abilities appear to the aides. They find they can perform the more difficult, "higher" tasks, and that their own intrinsic rewards are greater. Teachers also find that the aides are capable of carrying out these tasks, and more important, that the teachers' authority, competence, effectiveness and professionalism are enhanced rather than weakened.

Stage two apparently is the most critical stage in the process. Success or failure seem to be determined in this stage. When all goes well the satisfaction of the safety needs is



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### Stage Three

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reinforced, and the higher level social needs begin to be satisfied. Bonds of affection and mutual respect are developed. Each begins to recognize his own and the other's potential in the partnership.

One drawback in Step Two is that teacher or aide may recognize their own potential, but not the potential of their associate; or they may recognize the potential of the associate, but not their own. If this occurs, the project is likely to end in failure. Mutual acceptance and respect seem to be prerequisites for stage three.

### Stage Three--Team Formation

The teacher and the aide begin to function as a team in stage three. While certain tasks are performed by one member, the majority are performed by both. Joint planning sessions wherein each member adds his or her peculiar knowledge, skill, and understandings occur frequently. Each is willing to try new approaches to the teaching-learning process. The teacher discovers new dimensions to her role--diagnosing, prescribing, and administering. She discovers that freedom given to the aide results in greater self-professionalism rather than less; reason seems to become the determining criterion rather than authority.

The aide also grows in competency. She discovers the joy associated with children's learning. She becomes more aware of her own potential and ability. She, too, is more willing to experiment. Often, this is the stage where aides begin to consider a return to school--"I think I'd rather be a teacher, and I can become one."

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Stage Four--The Fully-Functioning Team

As the teachers and the aides become more confident of their own abilities and of their partner's, they become more willing to rely on each other, and to try new ideas. They discover "I can; my partner can; and students can." The team now includes children and becomes more a part of the learning process. The classroom atmosphere becomes less rigid, more friendly, and more conducive to experimentation and learning in stage four. Each member of the team (this includes the teacher and the aide) is safe, socially accepted, confident of self, and free to become a fully-functioning person.

Theory Summarized

The theoretical model presented was an over-generalized, optimum progression. It began with the teacher and the aide questioning their own adequacy. Simple instructions and simple tasks (ice-breakers) served to increase their feelings of adequacy and allowed them to test new behaviors. As they achieved success with new, and more difficult behaviors, they felt better about themselves and each other.

The more confident both teacher and aide became, the less status conscious and the more open. A team developed. As the team functioned well for the teacher and the aide, it was opened up to include the students. Children received more individual attention, and were more involved in the learning process.

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### Definitions of Terms

Aide, Paraprofessional, and Teacher Aide shall be used synonymously and shall refer to those uncertificated personnel employed under Section 3, 1968 (Michigan) School Aid Act to reduce the adult/pupil ratio in classrooms.

Dogmatism and dogmatic attitudes refer to an individual's certainty of personal opinions. The more certain an individual is of his opinions, and the less willing or able to change the opinions, the more dogmatic. In Phase III of this study, dogmatism is that measured by the Rokeach Dogmatism Scale, Form D.

Duties, Tasks, and Activities are used synonymously and refer to actions performed by teachers and/or aides in their line of duty. These may be prescribed, prohibited, planned, or unplanned.

Home Counseling Duties are actions performed by aides that relate the school to the home. Included are conferences at school or in the home, concerning the student or other members of the family, the health and welfare of the family, and making contacts between the family and other social agencies. The home counselor is a non-certificated school person, who is a friend of the families.

Learning Reinforcement Activities are activities conducted by aides to facilitate understanding and mastery by the student of the concepts and skills presented by the teacher.

Planning Activities are activities conducted by teachers, teachers and aides, or aides in order to determine curriculum presentations. Planning may be done on either long or short term basis.

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Section 3 and Middle Cities refer to those cities in which the schools, school districts, or projects received funding under Section 3, 1968 School Aid Act (Michigan).

Self-Assessment Techniques are ordered methods wherein teachers can observe their own behavior. Flander's Interaction Analysis and the Matrix developed by the Cooperative Educational Research Laboratory, Inc. are two techniques. Video-taping is a commonly used practice.

Self-Concept is the configuration an individual holds of himself; the way in which one looks at himself. In Phase III of this investigation self-concept is that which is measured by the Tennessee Self-Concept Scale.

Teacher Only Tasks were identified and defined in a study by R. A. Moon.<sup>1</sup> These duties were to be performed only by teachers and not by aides.

### Summary and Overview

Chapter I introduced the study which proposed to examine the performance of para-professionals employed in Middle Cities Projects. The actual duties paraprofessionals performed--the trends, problems, and attitudes--plus the relevancy of self-concept and/or dogmatism to their performance were the foci of this three-phase study.

Phase One--A survey of funded proposals to determine intents.

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<sup>1</sup>  
R. A. Moon, "An Analysis of Teacher Tasks to Enable Identification of the Potential Use of Auxiliary Personnel in the Instructional Process, (Ph. D. dissertation, Dept. of Education, Michigan State University, 1960), pp. 61-69.



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Phase Two--A series of interviews to determine trends, problems, and attitudes.

Phase Three--An exploratory probe to quantify certain behaviors and to determine the relevancy of self-concept and/or dogmatism to aide performance.

Chapter II surveys the literature related to aides, self-concept, and dogmatism. Chapter III describes the methodology and design of each of the three phases. In Chapter IV results from the survey, interviews, and the quantification are presented. Chapter V summarizes the entire study, offers recommendations, and interpretations; and includes some "meta-data" interpretations and predictions.

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## CHAPTER II

### REVIEW OF RELATED LITERATURE

The main intentions in this study were to determine the types of duties aides actually performed and to determine whether or not the duties performed changed from clerical, routine duties to duties more closely related to professional duties. The first section of this chapter reviewed literature related to teacher aides or paraprofessionals. Concentration was placed on the types of duties aides were performing, paraprofessional qualifications, legal status, and the numbers employed in the United States.

The rationale or theoretical basis of the intended progression from clerical duties to professional-type duties was developed from perceptual psychology. Assumptions were made that man was a coping, striving animal whose needs, desires, and wants were based on a hierarchy of order. Reviewed were writings concerned with man's hierarchy of needs, self-concept, and dogmatism.

#### Paraprofessionals

A review of the literature pertaining to paraprofessionals clearly indicated that:

1. An increasing number of teacher aides or paraprofessionals were being employed in public schools throughout the United States.
2. Favorable reactions to teacher aide programs were prevalent.

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3. Little research has been conducted relevant to teacher aides, and the majority of that has been the interview-questionnaire survey type literature.
4. A great deal of confusion exists as to the legal status, qualifications, and duties of paraprofessionals.
5. Not only was the question "What is a paraprofessional?" unanswered; but also unanswered was the question, "What is a professional?"

Laurence J. Peter may well have had the literature pertaining to teacher aides in mind when he said ". . . it may be to prove the author's competence by showing the mountain of dross he has sifted to win one nugget of truth."<sup>1</sup>

#### Numbers and Favorable Reactions

Whether labeled "an exploding development"<sup>2</sup> or labeling it as a rapidly developing "significant movement in education"<sup>3</sup> there is little question as to the increased numbers of non-professional people being employed in schools. A New England survey showed that an increase of aides from 420 to 502 occurred from the school years ending 1966-67.<sup>4</sup> The great influx was

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<sup>1</sup> Laurence J. Peter, The Peter Principle (New York: Bantam Books, 1969), p. 65.

<sup>2</sup> William H. Johnson, "Utilizing Teacher Aides," Clearing House, 42:4 (December, 1967), 229-233.

<sup>3</sup> Laurel N. Tanner and Daniel Tanner, "The Teacher Aide-- A National Study of Confusion," Educational Leadership, 26:8 (May, 1969), 765-769.

<sup>4</sup> Alta M. Saunders, "The Use of Teacher Aides in Connecticut," The Connecticut Teacher (November, 1967), pp. 30-31, 39.

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indicated by the fact that "nearly half the teacher aide programs now operating in large public schools are less than three years old."<sup>1</sup>

Federal funding was a large factor in the increased use of teacher aides. Title I of the Elementary and Secondary Education Act and the Office of Economic Opportunity were two common sources of federal funding by which school districts employed aides.<sup>2</sup> The Tanners,<sup>3</sup> The Metropolitan Educational Research Association,<sup>4</sup> and the Bank Street College Reports,<sup>5</sup> indicated the influence of the federal government on both the increasing number of aides, and for much of the related research.

The increased number of aides demonstrated the growing acceptance of aide use. The recent literature confirmed the acceptance indicated by the growth.

The literature of the 1950's shows that the writers who were involved in some way with a teacher aide project were favorably impressed with such programs, while those who were critical were generally not connected with any such project. A striking change has occurred, however, in the

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<sup>1</sup>S. Kern Alexander, "What Teacher Aides Can--and Cannot--Do," Nation's Schools, 82:2 (August, 1968), 23-25, 46.

<sup>2</sup>National Commission on Teacher Education and Professional Standards. Auxiliary School Personnel (Washington, D. C.: National Education Association, 1967), p. 9.

<sup>3</sup>Tanner and Tanner.

<sup>4</sup>Metropolitan Educational Research Association, A Look at Teacher Aides and Their Training (East Lansing: Michigan State University, June 1968).

<sup>5</sup>Garda W. Bowman and Gordon J. Klopff, Auxiliary School Personnel: Their Roles, Training, and Institutionalization. (New York: Bank Street College of Education, October, 1966).



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decade of the 60's. Aides seem to have become an acceptable and welcome part of the educational setting.<sup>1</sup>

A survey by the New York State Education Department in 1965 showed that out of 428 districts employing teacher aides, 93 per cent considered their experience favorable, twenty-six districts were neutral, and only four districts expressed unfavorable opinions. A project begun in Pittsburgh in 1960 was cited by Reissman and Pearl as being so successful the number of aides doubled after the first four years.<sup>2</sup> Anderson adequately summarized the general attitude toward teacher aides and the literature when he said "The research in this field has been rather limited. Most of the literature dealing with non-professionals is descriptive or testimonial, and almost none of it was negative."<sup>3</sup>

#### Reports and Research

Anderson was not the only one to decry the limited amount of research conducted about teacher aides. The dearth of material did not restrain the various writers from supporting aide projects. The final evaluation report of the Bay City Project stated

While there is regrettably little experimentally derived objective data bearing upon quality of teaching in aided, as contrasted with non-aided classrooms, there is a

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<sup>1</sup>Metropolitan Education Research Association, p. 1

<sup>2</sup>National Commission on Teacher Education and Professional Standards, p. 15.

<sup>3</sup>Robert H. Anderson, "Organizational Character of Education: Staff Utilization and Deployment," Review of Educational Research, 34:4 (October, 1964), 459.

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considerable body of evidence supporting the teacher aide<sup>1</sup> program and related projects as a tool of administration.

Research reports presented are almost exclusively the interview-survey and perception type reports, rather than experimentally designed, empirical type research. The majority of articles spoke with the authority usually derived from research reports, but unfortunately neglected the basic research. Typical of the literature in terms of its hortatory nature was Auxiliary School Personnel which was published by the National Education Association. This clear-cut, definitive, excellent guide was atypical only in the sense that it called itself "a statement by the National Commission on Teacher Education and Professional Standards."<sup>2</sup>

NEA also published Teacher Aides at Work,<sup>3</sup> a narrative by Gertrude Noar, a reporter. The pamphlet was a conglomeration of her impressions garnered from a cross-country tour talking to teachers and teacher aides. More formalized reports came from specific projects. Typical was the summation of teacher duties in Lexington and Missouri City.<sup>4</sup> The Bay City,<sup>5</sup> the Wayne

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<sup>1</sup>Central Michigan University, A Cooperative Study for the Better Utilization of Teacher Competencies. Final Evaluation Report (Mount Pleasant: Central Michigan University, 1958), p. 24.

<sup>2</sup>National Commission on Teacher Education and Professional Standards.

<sup>3</sup>Gertrude Noar, Teacher Aides at Work (Washington, D. C.: National Commission on Teacher Education and Professional Standards, NEA, 1967).

<sup>4</sup>Bryce Perkins, Getting Better Results from Substitutes, Teacher Aides, and Volunteers (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1966).

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ounty,<sup>1</sup> and The New England<sup>2</sup> works exemplified research being conducted by agencies, organizations, and individuals throughout the country. The majority were surveys, interviews, and observations.

### Surveys

The literature described surveys conducted in regard to paraprofessionals. Saunders' "The Use of Teacher Aides in Connecticut,"<sup>3</sup> Bills' Pennsylvania Survey,<sup>4</sup> and the Secondary School Principals Survey<sup>5</sup> were three such reports. Superintendents, teachers, and aides were surveyed in most projects. Type of duties aides perform, qualifications, training, and legal status were the most common concerns.

The Bank Street College of Education led a nationwide study of teacher aides. A consortium of several school districts and universities comprised the study. The Office of Economic Opportunity funded the project.<sup>6</sup> Mainly a survey-

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<sup>1</sup>Arnold Glovinsky and Joseph P. Johns, Studying the Contribution of the Paraprofessional and Planning for Their Recruitment, Selection, Training, and Use in the Wayne County Public and Non-public Schools (Detroit: The Paraprofessional Study, September, 1968).

<sup>2</sup>The New England Educational Assessment Project, Teacher Aides in the Classroom: A New England Study (Providence: The Project, 1967).

<sup>3</sup>Saunders.

<sup>4</sup>H. Stanley Bills, "How Do Teachers Feel About Paraprofessionals?" Pennsylvania School Journal, 117:9 (May, 1969), 552-554.

<sup>5</sup>Ira J. Singer, "Survey of Staff Utilization Practices in Six States," National Association of Secondary School Principals Bulletin, 46:270 (January, 1962), 1-13.

<sup>6</sup>Bowman and Klopff.

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perception study, some empirical efforts were exerted. Much of the empirical data, tapes, grades, and records still have not been analyzed.<sup>1</sup> The dearth of "hard data" urgently pointed out the need for more rigorous types of research. Empirical data were gathered through a time and motion study in the Bay City Project.<sup>2</sup> The report of an elementary school in Dearborn, Michigan used "hard data" from children's performance. The reports illustrated paraprofessionals were employed in many different capacities with wide ranges of activities. The legal status of aides differed from state to state, as did necessary qualifications. Almost all reports were positive and supported the use of aides.

The Heart of the Problem--Professional  
versus Paraprofessional

Perhaps the confusion obvious in the literature stemmed from the confusion in actual practice between what duties paraprofessionals actually can and do, and what duties only teachers should do. According to the Tanners, "Despite the almost phenomenal rise in the number of teacher aides, there is still no theoretical basis for determining the kinds of tasks they should or should not perform."<sup>3</sup> It may be necessary to answer the

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<sup>1</sup>Personal conversation, Dr. Richard Alexander, Professor of Elementary Education, Ball State University, Muncie, Indiana, August, 1970.

<sup>2</sup>"One Way to Ease Teacher Shortage," U. S. News and World Report (May 11, 1956), pp. 52-53.

<sup>3</sup>Tanner and Tanner, p. 765.



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### A Semi-Profession

At first glance it appeared that Etzioni served only to confuse an already complicated situation when he chose to refer to the teaching profession as a "semi-profession." He argued that teachers, nurses, and social workers could only be referred to as semi-professionals as their training was shorter, their status less legitimatized, their right to privileged communication less established, and their fields afforded a minimum body of specialized knowledge. Also the members of the semi-professions had less autonomy from supervision or societal control than their professional counterparts.<sup>1</sup>

Lortie's chapter supported Etzioni and led to the question: "If a teacher is a semi-professional, what then is the paraprofessional?" Etzioni sharpened, rather than confused, the issues of paraprofessional versus professional.

To Twist, the differences between duties of teachers and duties of aides has become clear. "Most important, we believe, is the fact that differentiation can now be made between professional responsibilities and other duties which are sub-professional in nature. . . ."<sup>2</sup> The Bank Street report disagreed with Twist, and represented the view of many by stressing the need for

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<sup>1</sup> Amitai Etzioni, ed., The Semi-Professions and Their Organization (New York: The Free Press, 1969), p. 13.

<sup>2</sup> Dwight E. Twist, "Improving Instruction through More Effective Utilization of Certificated Personnel," Journal of Secondary Education, 43:1 (January, 1968), 32.

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re-examination of the teaching function "To identify those duties which might be performed by non-professionals. . ." and "That teaching functions be further examined to identify the more complex and highly professional function which should be performed by a teacher alone. . . ." <sup>1</sup>

"Professional" and "paraprofessional" most frequently were defined by tasks performed, rather than by certification. Specific delineations of paraprofessional duties usually provided a "loop-hole" that enabled aides to perform a wide variety of tasks. Garvey illustrated this when he added to his list of routine duties "such paraprofessional duties as may be assigned by the teacher." <sup>2</sup> Garvey's description coincided with Glovinsky's which defined the paraprofessional as one who did what the teacher instructed them to do. <sup>3</sup>

### Duties of Paraprofessionals

The Minnesota State Department of Education represented the small percentage of agencies that limited aides to restricted, prescribed duties. Aides were allowed to supervise playgrounds during free play periods, but not during physical education classes. Clerical, custodial, and routine tasks were prescribed. The door was left open for the aide to perform a wide range of duties as she was "to take charge of a class in the absence of

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<sup>1</sup>Bowman and Klopff, p. 7.

<sup>2</sup>James F. Garvey, Handbook for Paraprofessionals (Swarthmore, Pa.: A. C. Croft, Inc., 1968), p. 16.

<sup>3</sup>Glovinsky and Johns, p. 1.

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the teacher."<sup>1</sup> One article contradicted itself by following its restricted, non-student contact list of aide duties with the statement that aides were working with children on a one-to-one basis in drill work, storytelling, creative writing, etc."<sup>2</sup> Often aides performed the "non-teaching" function of teaching children what they had missed when absent.<sup>3</sup>

### Aide Classification

A convenient way to sidestep the teach, non-teach controversy was used by DeLara,<sup>4</sup> Herman,<sup>5</sup> Carson,<sup>6</sup> and Saunders,<sup>7</sup> who classified aides as "instructional" or "non-instructional." Most reports concurred on non-instructional duties such as record-keeping, averaging marks, and duplicating materials. Supervising the classroom when the teacher had to leave the

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<sup>1</sup>Minnesota Department of Education, "Using Teacher Aides," Minnesota Journal of Education, 46:3 (November, 1965), 29.

<sup>2</sup>Jackson, Michigan Public Schools, A Dual Opportunity Educational Services Program: Utilizing Teacher-Aides in the Jackson, Michigan Public Schools.

<sup>3</sup>Intermediate School District, County of Macomb, Teacher Aides or Para-Professionals, Statement and Description (Mount Clemens, Mich.: School District, April 6, 1967).

<sup>4</sup>Lane E. DeLara, "Teacher Aides in Junior High School," Clearing House, 42:4 (December, 1967), 234-237.

<sup>5</sup>Wayne L. Herman, "Teacher Aides: How They Can Be of Real Help," Grade Teacher, 84 (February, 1967), 102-103, 168-169.

<sup>6</sup>School District of the City of Highland Park, Teacher Aide Program, Highland Park, Michigan.

<sup>7</sup>Saunders.

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Some classification schemes discussed a career ladder wherein aides progress from non-instructional to instructional, then to pursuit of their own education and eventually become teachers.<sup>3</sup> The Chicago Public School System<sup>4</sup> used a rather simple aide classification system. Aides were "high school aides, upper grade center aides, educational and vocational aides, guidance center aides, or elementary school aides."<sup>5</sup> Other classification systems were more complicated. Patton typified the most frequently used classification--clerical aides, library aides, housekeeping aides, non-instructional supervisors, and instructional assistants.<sup>6</sup> The NEA publication Auxiliary School Personnel added special talents in human relations skills dealing with the communities.<sup>7</sup> The most comprehensive detailed classification system was offered by Glovinsky with twenty-six separate functions being performed in Wayne County. These

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<sup>1</sup>Ibid.

<sup>2</sup>Johnson, p. 230.

<sup>3</sup>Metropolitan Educational Research Association, p. 24.

<sup>4</sup>Chicago Public Schools, Report of the Teacher Aide Committee (Chicago: Chicago Public Schools, October 17, 1967).

<sup>5</sup>Ibid.

<sup>6</sup>L. Goebel Patton, "The Teacher and His Staff: Year of the Non-Conference," Illinois Education, 56:1 (September, 1967), 21-22.

<sup>7</sup>National Commission on Teacher Education and Professional Standards, p. 9.



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functions ranged from the classroom aide who performed teacher reinforcement tasks to the laboratory technician.<sup>1</sup>

### Trends

The trend definitely appeared to be toward performance of more teaching duties. Anderson stated that the general trend was to include in the domain of the aide ". . . a number of functions once regarded as the province of the fully certified teacher." The Tanners announced, "All these functions which have clearly been the priority of the teacher are now classified as non-teaching duties by the NEA research checklist."<sup>3</sup>

No clear-cut definition of paraprofessional nor a clear-cut description of paraprofessional was provided by the relevant literature. A definite trend was discussed toward more teaching duties. The trend is not surprising considered in light of DeLara's statement that "there was a strong feeling on the part of the aides that they wanted to spend more time with the students and less time on the clerical routine."<sup>4</sup> The wide range of duties and various roles fulfilled by aides has affected the role and the status of the teacher.

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<sup>1</sup>Glovinsky and Johns, pp. 15-17.

<sup>2</sup>Anderson, p. 459.

<sup>3</sup>Laurel N. Tanner and Daniel Tanner, "Teacher Aide--A Job for Anyone in Ghetto Schools," The Record (Teachers College, Columbia University, 69:8 (May, 1968), 745.

<sup>4</sup>DeLara, p. 236.

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Emerging Role of the Teacher

The effect on the teaching profession by the advent of paraprofessionals was predicted by Johnson who said, "In fact, the auxiliary may enhance the possibility for developing more definite professional roles for the teacher."<sup>1</sup> Other writers indicated that the changes would not be the specific tasks performed, but the nature of the tasks. Self-examination and improved teaching were two outcomes of having aides in the classroom according to Noar.<sup>2</sup> Noar also spoke of the managerial aspects of a teacher's role when working with auxiliary personnel.<sup>3</sup> Esbensen concurred with the managerial role and concluded that it was the teacher who was responsible to arrange the formal learning environment, to analyze, prescribe, and direct the aide to fulfilling those duties necessary to fulfill the learning goals. Glovinsky described teacher activities to be diagnosing, prescribing, selecting, and presenting content, counseling, evaluating, and initiating.<sup>5</sup> Only in the presentation of content did he differ from Esbensen.

According to Etzioni, one reason teachers strive to professional status was the desire to be something more than secretaries, sales girls, or office clerks.<sup>6</sup> As teachers see

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<sup>1</sup> Johnson, p. 231.

<sup>2</sup> Noar, p. 28.

<sup>3</sup> Ibid.

<sup>4</sup> Thorwald Esbensen, "Should Teacher Aides Be More than Clerks? Phi Delta Kappan, 47:5 (January, 1966), 237.

<sup>5</sup> Glovinsky and Johns, p. 8.

<sup>6</sup> Etzioni, p. vi.

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aides performing more and more professional duties, then teachers will perform the duties of team leaders, managers, diagnosticians, and prescribers. They have no way to go but up. Lortie stated that an "analysis of schools where team teaching has been in effect for some years might reveal incipient professionalization as collegial ties replace isolation and team leaders occupy leadership rank within the teaching force."<sup>1</sup>

#### Legal Status and Qualifications

Qualifications of aides varied from district to district and state to state. The legal status of aides was even more widely varied than aide qualifications. Tanner showed ten states had laws affecting aide functions, eleven had policies and guidelines, and twenty-nine states had no statutory provisions, guidelines, or policies, for teacher aides. Many duties that could be performed by an aide in one state would be illegal in another.<sup>2</sup>

The Illinois legislature designated two types of para-professionals--teaching and non-teaching. Each classification had its own qualification requirements.<sup>3</sup> Unfortunately, the law was not clear enough to many school people and the Superintendent of Public Instruction issued a clarifying statement stating that:

School boards could utilize volunteer, non-certified personnel or employ non-certified personnel to assist with the instruction of pupils under the immediate

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<sup>1</sup>Etzioni, p. 43.

<sup>2</sup>Tanner and Tanner, p. 767.

<sup>3</sup>Lloyd L. Leonard, "Teacher Aides in Illinois Public Schools," Illinois Education, 57:4 (December, 1968), 143.

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Many duties performed in Illinois by a teacher aide would be illegal in Minnesota.<sup>2</sup>

### High School Diploma

The most prevalent qualification for a teacher aide is a high school diploma; required in Kansas City, Kansas,<sup>3</sup> Mt. Clemens, Michigan,<sup>4</sup> Chicago, Illinois,<sup>5</sup> and suggested in Garvey's Handbook for Paraprofessionals.<sup>6</sup> The Bank Street report did not explicitly say a high school education was necessary, but the need for higher education and two-year community college programs for aides was suggested.<sup>7</sup> A high school diploma was not required in Albion or Jackson, Michigan, nor in many other communities. In Illinois, outside Chicago, a teacher aide must have thirty hours beyond a high school diploma if she is to assist in instruction.

### Personality

Each list of qualifications discussed personality attributes that were necessary for aides. The lists were

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<sup>1</sup> Ibid.

<sup>2</sup> Minnesota Department of Education.

<sup>3</sup> Donald Hair and Eugene Wolkey, A Plan for Differentiated Staffing: A Case Study (Kansas City, Mo., 1968).

<sup>4</sup> Intermediate School District, County of Macomb.

<sup>5</sup> Chicago Public Schools.

<sup>6</sup> Garvey.

<sup>7</sup> Bowman and Klopff.



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similar, and included those attributes usually prescribed for teachers--warmth, humor, kindness, interest in children, etc. The NEA concurred with the usual list of attributes, but said that qualifications for a teacher aide should be related to the job and that a set list would not suffice.<sup>1</sup>

### Actual Practice

Bills conducted a survey in Pennsylvania to determine the academic status of the aides currently employed. His findings were to be expected from the wide range of qualifications. Bills found junior high dropouts and master degree holders; aides ranged in age from 16-65; and some lived in the neighborhoods where they worked, others did not.<sup>2</sup> Nothing in the literature indicated that Pennsylvania was unique in the use of aides. The wide range of aides employed in Pennsylvania is probably indicative of the wide range of aides employed elsewhere in American public schools.

### Summary of Aide Literature

Most of the literature regarding teacher aides is the personal-subjective type reporting; little research has been conducted. Most research has been the survey-interview questionnaire. Teacher aides are increasing, becoming more accepted, and are performing a wide range of duties. The legal status and qualifications are widely varied. Paraprofessionals appear to

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<sup>1</sup>National Commission on Teacher Education and Professional Standards.

<sup>2</sup>Bills, p. 554.

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<sup>1</sup> Abraham  
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### Growth of the Individual

Literature related to the underlying philosophy, or rationale, of the study was reviewed in this section of the chapter. The major contention was that paraprofessionals would emulate teachers by performing an increasing number of teaching acts while each project continued. The literature reviewed related to three assertions from the field of perceptual psychology that underlie the study:

1. Man is by nature a striving, coping animal
2. Man's needs are arranged in an hierarchical order
3. Man's self-concept is a major determinant of behavior, as is the degree of openness or closedness.

Difficulties in measuring self-concept and dogmatism were also reviewed.

### The Striving Nature of Man

Modern perceptual psychologists agree that man has an inner nature or self. Maslow said that as the inner nature was good or at least neutral, it was better to encourage it. "If it is permitted to guide our life, we grow healthy, fruitful, and happy." But conversely, "If the inner nature of the person is denied, he undoubtedly will become sick."<sup>1</sup>

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<sup>1</sup>Abraham H. Maslow, Toward a Psychology of Being, 2nd edition (Princeton, N. J.: D. Van Nostrand Company, Inc., 1968), p. 4.

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Antecedent ideas concerning the striving inner nature of man date back to Aristotle, Leibnitz, St. Thomas Aquinas, and Spinoza.<sup>1</sup> According to Allport, "Spinoza insisted that conatus, the striving toward self-preservation and self-affirmation is the secret of all becoming."<sup>2</sup> Combs discussed the constant striving of man toward enhancement of self when he stated "the self, therefore, has to be maintained in the future, built up and enhanced so that the individual feels secure for tomorrow, and since the future is uncertain and unknown, no enhancement of the individual's experience, personal value, no degree of self-actualization is ever enough. Human beings are by nature insatiable."<sup>3</sup>

Maslow agreed with Combs when he stated "Man is a wanting animal and rarely reaches a state of complete satisfaction except for a short time. As one desire is satisfied, another pops up to take its place."<sup>4</sup> In agreement with Maslow as McGregor, who used almost the same words to express the agreement: "Man is a wanting animal--as soon as one of his needs is satisfied, another appears in its place. This process is unending."<sup>5</sup> Further similarity and agreement was indicated

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<sup>1</sup>Gordon Allport, Becoming (New Haven: Yale University Press, 1955).

<sup>2</sup>Ibid., p. 13.

<sup>3</sup>Arthur W. Combs and Donald Snygg, Individual Behavior, 2d. (New York: Harper and Row, 1959), p. 45.

<sup>4</sup>A. H. Maslow, Motivation and Personality (New York: McGraw-Hill Book Company, Inc., 1954), p. 69.

<sup>5</sup>Douglas McGregor, The Human Side of Enterprise (New York: McGraw-Hill Book Company, Inc., 1960), p. 36.

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when Maslow stated: "It is quite true that man lives by bread alone--when there is no bread, but what happens to man's desires when there is plenty of bread. . . ." McGregor said "At the lowest level, but preeminent in importance when they are thwarted are the physiological needs. Man lives by bread alone when there is no bread."<sup>2</sup>

### Hierarchy of Needs

McGregor's hierarchy of needs were described on pages 11 and 12 in the first chapter of this study. McGregor placed the physiological needs first, and then, in an ascending order, safety needs; social needs; two kinds of egoistic needs--to one's self-esteem and to one's reputation; and at the very top, the need for self-fulfillment.<sup>3</sup>

McGregor's hierarchy is similar to the one discussed by Maslow in his major work Motivation and Personality. Both writers agreed on the general structure of the hierarchy, whereas Maslow used the term self-actualization as his capstone. continued, though, by adding another group of needs:

Less studied but knowable through common observation are the cognitive needs for sheer knowledge (curiosity) and for understanding (philosophical, theological, value system building, explanation need). Finally, least well known are the impulses to beauty, symmetry, and possibly to simplicity, completion, and order which we may call esthetic needs. The need to express, to act out, and to motor completion that may be related to the esthetic need.<sup>4</sup>

<sup>1</sup> Maslow, Motivation and Personality, p. 83.

<sup>2</sup> McGregor, p. 36.

<sup>3</sup> Ibid., p. 39.

<sup>4</sup> Maslow, Motivation and Personality, p. 2.



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Another framework for understanding human behavior was offered by Adorno and others in The Authoritarian Personality.

The forces of personality are primarily needs (drives, wishes, emotional impulses) which vary from one individual to another in their quality, their intensity, their mode of gratification and the objects of their attachment and which interact with other needs in harmonious or conflicting patterns. There are primitive emotional needs, there are needs to avoid punishment and to keep the good will of the social group. There are needs to maintain harmony and integration within the self.<sup>1</sup>

Murray described twenty-eight basic needs. Freud described two. Combs went from an original list of forty basic needs to one. "We can define man's basic need then as a need for adequacy."<sup>2</sup> Combs further defined man's basic need as ". . . that great driving, striving force in each of us by which we are continually seeking to make ourselves ever more adequate to cope with life."<sup>3</sup> This concept of human behavior was offered by Combs as a theory "broad enough to include all human behavior in all cultures at all times and at any age."<sup>4</sup>

The difficulty indicated by Combs in developing a theory comprehensive enough to predict human behavior was also illustrated by Maslow when he talked about developing a theory which could be constructed on fundamental goals or needs, rather than the usual type of listings of drives. Maslow said, "It is fundamental goals that remain constant through all the

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<sup>1</sup>T. W. Adorno, et al., The Authoritarian Personality (New York: Harper and Brothers, 1960), p. 5.

<sup>2</sup>Combs and Snygg, p. 49.

<sup>3</sup>Ibid., p. 46.

<sup>4</sup>Ibid., p. 53.

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In her major work The Self-Concept, Wiley reviewed motivational theories and research efforts related to self-concept. Her conclusion was that adequate motivational construct did not exist that would "account for all the kinds of behavior they wish to explain."<sup>2</sup> Each theory or description of needs was an attempt to understand and to predict man's behavior more adequately. Disagreement occurred as to the number of needs and the terminology used to describe needs. "Fully functioning" was used by Kelly and Rogers;<sup>3</sup> "self-fulfillment" by McGregor;<sup>4</sup> and "self-actualization" by Maslow;<sup>5</sup> as the term used to designate man's highest need. All agreed that man is continually striving to become more than what he is at the moment. Central to all descriptions and theories was the concept of self.

### Self-Concept

Between the times that James said, "Whatever I may be thinking of, I am always at the same time more or less aware of

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<sup>1</sup> Maslow, Motivation and Personality, p. 71.

<sup>2</sup> Ruth C. Wiley, The Self-Concept (Lincoln, Neb.: University of Nebraska Press, 1961), p. 318.

<sup>3</sup> Association for Supervision and Curriculum Development, Perceiving, Behaving, Becoming: A New Focus for Education (Washington, D. C.: The A.S.C.D. of the National Education Association, 1962).

<sup>4</sup> McGregor, p. 39.

<sup>5</sup> Maslow, Toward a Psychology of Being, p. 3.

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self, of my personal existence,"<sup>1</sup> and the recent emergence of self and ego, Freud unintentionally preserved "... the concept of ego from total obliteration throughout two generations of strenuous positivism."<sup>2</sup> Allport's subtle statement summarized the state of affairs of both the phenomenologists and the positivists.

They [the phenomenologists] have reintroduced self and ego unashamedly and, as if to make up for lost time, have implied ancillary concepts such as self-image, self-actualization, self-affirmation, phenomenal ego, ego-involvement, ego-striving and many other hyphenated elaborations which to experimental positivism still have a slight flavor of scientific obscurity.<sup>3</sup>

Regardless of terminology, the concept of self is the acorn from which the oak of perceptual psychology has grown. The Encyclopedia of Educational Research stated that a number of theorists and research persons held the view that self-concept was the most important single human attribute, and "the key to understanding the behavior of any single person."<sup>4</sup>

Combs supported the concept of self as the core when he said, "The phenomenal self with the self-concept as its core, represents our fundamental frame of reference, our anchor to reality; and even an unsatisfactory self-organization is likely to prove highly stable and resistant to change."<sup>5</sup>

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<sup>1</sup>William James, Psychology (New York: Henry Holt and Co., 1920), p. 176.

<sup>2</sup>Allport, p. 37.

<sup>3</sup>Ibid.

<sup>4</sup>Encyclopedia of Educational Research (New York: Macmillan, 1960), p. 9.

<sup>5</sup>Combs and Snygg, p. 130.

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<sup>2</sup>Ibid

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Rogers defined self-concept in the following manner:

The self-concept or self-structure may be thought of as an organized configuration of perceptions of the self which are admissible to awareness. It is composed of such elements as the perceptions of one's characteristics and abilities, the percepts and concepts of the self in relation to others and to the environment. The value qualities which are perceived as associated with experiences and objects and goals and ideals which are perceived as having positive or negative valence.<sup>1</sup>

Rogers indicated awareness of the unconscious when he explained "how some concepts need not be present in consciousness for them to serve as guiding principles. . . ." <sup>2</sup> Kelly stated that the unconscious self was a continuum with the conscious self. The individual consisted of a self, with a unique, biological structure, whose development was strongly influenced by experiences.<sup>3</sup> Maslow investigated the intrinsic inner nature of the human being which consists both of unique and species-wide characteristics. The inner nature has a will toward growth and will come out as a drive toward self-actualization if given love and proper experience. "Although it may be good or neutral, it is definitely not evil."<sup>4</sup>

Although minor differences appeared in the various definitions of self, the differences were differences of degree rather than kind. Essentially each writer agreed to an individual "I", unique and general; who will grow, develop, and strive to

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<sup>1</sup>C. J. Rogers, Client Centered Therapy (Boston: Houghton-Mifflin, 1951), p. 137.

<sup>2</sup>Ibid., p. 498.

<sup>3</sup>ASCD, p. 9.

<sup>4</sup>Ibid., pp. 35-37.



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exist on a more satisfactory level; and the growth is inextricably a function of self and its relationship with others.

#### Behavior as a Function of Self-Concept

The relationship between self-concept and behavior was illustrated by Kelly who stated that fully functioning people had positive views of themselves, and thought of themselves as adequate to the task. The person who thought of himself as being adequate became adequate. Kelly continued: "An inadequate concept of self, so prominent in our culture, is crippling to the individual."<sup>1</sup> Rogers said that as therapy progresses people think more positively of themselves, and their perceptions of themselves are more accurate.<sup>2</sup> Maslow suggested that the behavior of healthy, self-actualizing individuals (who have positive self-images) be studied if we are to understand more of the nature of man, motivation, and personality.<sup>3</sup>

Kerensky stated that "the functional limits of one's ability to learn are determined by his self-conception of his ability as acquired through interaction with significant others."<sup>4</sup> Rogers commented, "to recognize that when a person's views of

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<sup>1</sup> Ibid., p. 10.

<sup>2</sup> Rogers, p. 137.

<sup>3</sup> Maslow, Motivation and Personality.

<sup>4</sup> Vasil M. Kerensky, "Reported Self-Concept in Relation to Academic Achievement in an Inner-City Setting" (Doctoral dissertation, Wayne State University, 1966), p. 1.

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<sup>2</sup>Clovis  
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himself change, his behavior changes accordingly. . . ."<sup>1</sup> Much research was conducted to affirm the importance of the self-concept on behavior. The direction of the hypotheses was that the higher the person's self-concept or self-esteem, the more adequate, accepting, and capable they were. "People with low self-esteem are likely to perceive more selectively and to interpret the intent of others less correctly than people with high self-esteem,"<sup>2</sup> was a representative sample of the research.

Hatfield found a relationship between successful student teaching and the adequacy of feelings that the student had about himself.<sup>3</sup> Wattenberg found self-concept predictive in meeting success.<sup>4</sup> Korman found children with high self-esteem picked high ability vocations. Korman further said that high self-esteem individuals predicted success, achieved success, and then predicted more difficult successes which were achieved.<sup>5</sup>

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<sup>1</sup>Gardner Lindsey and Calvin S. Hall, Theories of Personality: Primary Sources and Research (New York: John Wiley and Sons, Inc., 1965), p. 471.

<sup>2</sup>Clovis R. Shephard, Small Groups (San Francisco: Chandler Publishing Co., 1964), p. 62.

<sup>3</sup>A. B. Hatfield, "Experimental Study of the Self-Concept of Student Teachers," Journal of Educational Research, 55 (October, 1961), 87-89.

<sup>4</sup>William W. Wattenberg and Clare Clifford, "Relation of Self-Concepts to Beginning Achievement in Reading," Child Development, 35 (1964), pp. 461-467.

<sup>5</sup>A. K. Korman, "Self-esteem as a Moderator of the Relationship between Self-Perceived Abilities and Vocational Choice," Journal of Applied Psychology, 51 (February, 1967), 65-67.

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## Research

Although much of the research tends to indicate the accuracy of the theories related to positive self-concept and self-esteem, the majority of studies do not issue definite results. Wiley reviewed study after study related to self-concept, self-achievement, level of aspiration, socio-economic status, and many other studies related to self-concept. Studies conducted since publication of The Self-Concept have done little to change her conclusion:

On the whole we have found that there are enough positive trends to be tantalizing. On the other hand, there is a good deal of ambiguity in the results, considerable apparent contradiction among the findings of various studies, and a tendency for different methods to produce different results. In short, the total accumulation of substantive findings is disappointing, especially in proportion to the great amount of effort which obviously has been expended.<sup>1</sup>

Even though research does not confirm the theoretical contentions of self as a determiner of behavior, it does not deny it. In fact, the theories and research indicate the importance of self-concept on behavior and on perceptions.

## Perceptions of Reality

How an individual interprets an event, and the meaning he ascribes to it is a combination of both the event and the individual's perception of himself. Combs said, "the self provides the frame of reference from which all else is observed. People are not really fat unless they are fatter than we."<sup>2</sup> William James stated "That whilst part of what we perceive comes

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<sup>1</sup>Wiley, p. 317.

<sup>2</sup>Combs and Snygg, p. 145.

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through our senses from the object before us, another part (and it may be the larger part) always comes out of our own mind."<sup>1</sup>

When two people witness the same event, two separate, distinct interpretations follow. As a result of the differences in perceptions, a third party may well wonder if the first two people were describing the same event.

### Threat, Perception, and Behavior

Combs dealt with the negative effects of threat at length. He stated that "perhaps most destructive to human personality is the restrictive effect upon perception brought about by the individual's experience of threat,"<sup>2</sup> and "one's perceptions became less accurate as a result of threat and also that behavior became more rigid, and therefore less adaptable to the changing requirements."<sup>3</sup> Rogers asserted that rigidity and difficulty in the assimilation of new experiences resulted from threat.<sup>4</sup> Rokeach stressed the importance of an individual's belief system when he said, ". . . the findings suggest that a persons' belief system has pervasive effects on different spheres of activity--ideological, conceptual, perceptual, and esthetic."<sup>5</sup> Therefore, Rokeach's assertion that "the more threatening a situation is to a person, the more closed his belief system will tend to

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<sup>1</sup>James, Psychology, p. 329.

<sup>2</sup>Combs, p. 170.

<sup>3</sup>Ibid., p. 171.

<sup>4</sup>Rogers, p. 390.

<sup>5</sup>Milton Rokeach, The Open and Closed Mind (New York: Basic Books, 1960), p. 288.



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become,"<sup>1</sup> indicated that threat may well have a permanent effect on behavior.

Kelly, Rogers, and Maslow discussed the importance of threat, its negative effects, and its relation to adequate or inadequate concepts of self.<sup>2</sup> The more adequate the self-concept, the less harm, and in fact, the less often an individual experiences threat. For the person with an inadequate self-concept, the opposite is true.

### Research

Research conducted in this area tends to support the broad contention that openminded people were generally better off than closedminded people. Kaplan and Singer found that the smell and taste perceptions of openminded people were more accurate and extensive than those sense perceptions of closedminded people.<sup>3</sup> Restle, Andrews, and Rokeach found that openminded college students looked for principles, whereas the closedminded college students looked more to authorities as sources.<sup>4</sup> Kemp found openminded counselors to be more understanding with better integrated personalities than closedminded counselors. The openminded ones showed less anxiety but the

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<sup>1</sup> Ibid., p. 377.

<sup>2</sup> ASCD.

<sup>3</sup> Martin F. Kaplan and Ervin Singer, "Dogmatism and Sensory Alienation," Journal of Consulting Psychology, 27:6 (December, 1963), 486-91.

<sup>4</sup> Frank Restle, Martha Andrews, and Milton Rokeach, "Differences Between Open and Closed-Minded Subjects or Learning-Set and Oddity Problems," Journal of Abnormal and Social Psychology, 68:6 (June, 1964), 648-654.

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closedminded counselors adjusted more quickly. Kemp concluded that the closedminded counselors did what they were told.<sup>1</sup>

Much of the research did not confirm hypotheses related to authoritarianism, anxiety, and closedmindedness. Dispenzieri and Balinsky<sup>2</sup> and Bostrum<sup>3</sup> each illustrated research that afforded non-conclusive results. Most of the literature reported did indicate the superiority of openmindedness over closedmindedness; however, only a small percentage of articles accepting the null hypotheses are ever published; and those which were published used "tended to," and "generally" as typified by Bostrum when he said, "Closedminded persons tended to agree with the persuasive speaker more than do openminded."<sup>4</sup>

Phrases such as "tended," "came close to," or "approached" were often used by writers when their hypotheses did not achieve the desired level of significance. Although much of the research does not really affirm the superiority of openness over closedness, it did indicate the same type of "tantalizing trends" discussed by Wiley in regard to the research conducted related to self-concept.

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<sup>1</sup>C. J. Kemp, "Influence of Dogmatism on the Training of Counselors," Journal of Counseling Psychology, 9 (Summer, 1962), 155-157.

<sup>2</sup>Angelo Dispenzieri and Benjamin Balinsky, "Relationship Between Ability to Acquire Interviewing Skills and Authoritarianism and Manifest Anxiety," Personnel and Guidance Journal, 42:1 (September, 1963), 40-42.

<sup>3</sup>Robert N. Bostrum, "Dogmatism, Rigidity, and Rating Behavior," The Speech Teacher, 13:4 (November, 1964), 283-287.

<sup>4</sup>Ibid., p. 287.

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Self-Concept, Perception, and Openness

Within the theoretical framework of perceptual psychology is the positive relationship between self-concept and greater, more accurate perceptions of environmental stimuli--the more adequate the self-concept, the more open to stimuli. Combs used the term "tunnel vision" to describe an individual's ability to concentrate on specific phenomena. Tunnel vision may be necessary and effective at times, but it always results in a diminishing of the perceptual field or less openness.<sup>1</sup> Combs' position was that "perceptions are organized around the self-concept";<sup>2</sup> behavior was the "product of the individual's perceptions of himself and his perceptions of the situation in which he is involved"; and that threat usually resulted in a diminishing of the perceptual field.<sup>3</sup>

Rogers' and Kelly's adequate and fully functioning individuals,<sup>4</sup> Maslow's B and D motivations and the striving toward self-actualization,<sup>5</sup> and Combs' one basic need toward enhancement of the self<sup>6</sup> indicated their belief in the unity of the individual and in the consistency of behavior. The object of behavior was the preservation and enhancement of the self. Seemingly inconsistent behavior could be traced back to

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<sup>1</sup>Combs and Snygg, p. 169.

<sup>2</sup>Ibid., p. 146.

<sup>3</sup>Ibid., p. 440.

<sup>4</sup>ASCD

<sup>5</sup>Maslow, Toward a Psychology of Being.

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<sup>1</sup> Rokeach

<sup>2</sup> Ibid

the preservation of self. The more open, the more one would perceive; and conversely, the more closed, the less one would perceive.

### Openness, Dogmatism, and Authoritarianism

Rokeach, Adorno, and Frenkel-Brunswick examined man's behavior from the point of view of his ideological belief system. Rokeach spoke of belief and non-belief systems as well as congruent and incongruent systems within individuals. In one summary of his research he described five variables that aided in the formation of new belief systems. Each variable definitely favored individuals with open systems over those with closed systems. "Again, those with relatively open systems have been shown to be better off in this respect than those with relatively closed systems."<sup>1</sup> Rokeach also discussed the structural nature of man and how one's belief system affected behavior in different spheres of activity, which "on the surface, they (the spheres of activity) are indeed different types of behavior; but beneath the surface (genotypically) they seemed to have something in common."<sup>2</sup>

The monumental work The Authoritarian Personality was guided by the thought or hypothesis: "that the political, economic, and social convictions of an individual often form a broad and coherent pattern as if bound together by a 'mentality' or 'spirit,' and that this pattern is an expression of deep lying

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<sup>1</sup>Rokeach, The Open and Closed Mind, p. 287.

<sup>2</sup>Ibid., p. 288.



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trends in his personality."<sup>1</sup> Adorno, Frenkel-Brunswick and others maintained the overall structure or cohesiveness of the individual, but like Rokeach they provided for inconsistent behavior. "The structure may not be integrated, it may contain contradictions as well as consistencies, but it is organized in the sense that the constituent parts are related, in psychologically meaningful ways."<sup>2</sup> The authoritarian personalities were described as being rigid, constricted, and rejecting of everything that reminded them of their own repressed impulses. Their range of experience was narrow and "as if they can experience only the one conventionally correct attitude or emotion in any given situation."<sup>3</sup>

The phenomenologists spoke of self-concept, its effect on perception, the multiple effect on behavior, and the preferability of an open perceptual field over a closed one. Adorno, Frenkel-Brunswick and Rokeach spoke of belief systems, personality, inconsistent behavior, and the preferability of openness over closedness. Similarity of preference and concern with open and closed systems led to a review of literature related to dogmatism and other related variables.

### Dogmatism

Rokeach defined dogmatism as:

- a) a relatively closed cognitive organization of beliefs and disbeliefs about reality;

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<sup>1</sup> Adorno, et al., p. 1.

<sup>2</sup> Ibid., p. 965.

<sup>3</sup> Ibid., p. 965-966.

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- b) organized around a central set of beliefs about absolute authority which in turn provides a framework for patterns of intolerance and qualified tolerance toward others.<sup>1</sup>

He went on to state that a closed system was one where belief systems and disbelief systems were isolated in a great degree.<sup>2</sup>

In The Open and Closed Mind Rokeach stated, "dogmatism, then, is the extent to which an individual's belief system is open and/or closed;. . . ." <sup>3</sup>

### Research

Pannes attempted to relate self-concept and dogmatism among junior high school students by relating self-acceptance to dogmatism. Surprised by results which indicated "the more favorable the self-image, the more closed the mind,"<sup>4</sup> Pannes questioned the sample. Long and Ziller found that dogmatic people searched less and saw less "by limiting the intake of information the dogmatic individual maintains his conceptual system."<sup>5</sup> They concluded that when the mind closes, "changes or re-evaluation of the self-concept may be avoided."<sup>6</sup> Research

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<sup>1</sup>Milton Rokeach, "The Nature and Meaning of Dogmatism," Psychological Review, 61:319 (May, 1954), 195.

<sup>2</sup>Ibid.

<sup>3</sup>Rokeach, The Open and Closed Mind, p. 57.

<sup>4</sup>E. D. Pannes, "Relationship Between Self-Acceptance and Dogmatism in Junior-Senior High School Students," The Journal of Educational Sociology, 36 (May, 1963), 421.

<sup>5</sup>Barbara H. Long and Robert C. Ziller, "Dogmatism and Predecessional Information Search," Journal of Applied Psychology, 49:5 (October, 1965), 377.

<sup>6</sup>Ibid.

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### Rigidity

Rokeach distinguished between dogmatism and rigidity by stating that dogmatism was a "system variable, characteristic of the total system. Rigidity was characteristic of the elements within a system."<sup>1</sup> He stated that dogmatism was more intellectualized and abstract than rigidity and referred to total cognitive organization of ideas and beliefs. "Thus dogmatism is seen as a higher order and more complexly organized form of resistance to change."<sup>2</sup>

Pearl investigated the relationship between ethnocentrism and self-concept in a VA hospital with twelve patients. Although his results were not conclusive, it appeared that self-concept changes occurred with greater degrees of self awareness and reduced ethnocentrism.<sup>3</sup> Ethnocentrism was found to be related to rigidity by Rokeach. He found that prejudiced subjects were more rigid than non-prejudiced subjects and that ethnocentric individuals were more rigid than non-ethnocentric individuals.<sup>4</sup>

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<sup>1</sup> Rokeach, The Open and Closed Mind, p. 286.

<sup>2</sup> Rokeach, "The Nature and Meaning of Dogmatism," p. 196.

<sup>3</sup> David Pearl, "Ethnocentrism and Self-Concept," Journal of Social Psychology, 40:1 (August, 1954), 137-147.

<sup>4</sup> Milton Rokeach, "Mental Rigidity and Ethnocentrism," Journal of Abnormal and Social Psychology, 43 (July, 1948), 277.

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## Authoritarianism

Research concerned with authoritarianism is replete with terms like "generally" and "tend to," and "seemed to indicate." Nevertheless, the research does indicate the preferability of non-authoritarian individuals over authoritarian individuals. Adorno and others found the authoritarian personality to be rigid, limited, inexperienced, and narrow.<sup>1</sup> Scodel and Mussen found, "the overall results generally support the major hypothesis of the study: non-authoritarian individuals do in fact make more accurate judgements about authoritarians than authoritarians."<sup>2</sup> Scodel and Freedman found that authoritarians tended to estimate their peers to be more like themselves, whether or not the peers were, in fact, like themselves. People who were low in authoritarianism were not uniform.<sup>3</sup> Similar findings were found by Crockett and Meidinger.<sup>4</sup>

"The work of Frenkel-Brunswick, Rokeach, and others demonstrated a significant relationship between authoritarianism or dogmatism respectively and anxiety."<sup>5</sup> Hart and Brown were not

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<sup>1</sup>Adorno, et al.

<sup>2</sup>Alvin Scodel and Paul Mussen, "Social Perceptions of Authoritarians and nonauthoritarians," Journal of Abnormal and Social Psychology, 48:2 (April, 1953), 183.

<sup>3</sup>Alvin Scodel and Maria L. Freedman, "Additional Observations in the Social Perceptions of Authoritarians and Nonauthoritarians," Journal of Abnormal and Social Psychology, 52:1 (January, 1956), 92-95.

<sup>4</sup>W. H. Crockett and Thomas Meidinger, "Authoritarianism and Interpersonal Perception," Journal of Abnormal and Social Psychology, 53:3 (November, 1956), 378-380.

<sup>5</sup>Sister M. Maxine Hart and Marjory Brown, "Dogmatism as Related to Accuracy--a Student Teacher's Judgement of Students," Journal of Teacher Education, 18:4 (Winter, 1967), 429-437.



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The findings of research related to dogmatism, rigidity, authoritarianism, and ethnocentrism appeared to be another "tantalizing trend." Kaplan and Singer reported that dogmatism and fanaticism were closely related and individuals who were either dogmatic or fanatic, rigid, incapable of tolerating ambiguity, and closedminded. According to Kaplan and Singer, dogmatism was synonymous with closedmindedness and rigidity. Each was a manifestation of psycho-pathology and which detracted from self-awareness.<sup>1</sup>

#### Authoritarianism and Self-Esteem

Several investigators have attempted to correlate self-esteem, ethnocentrism, authoritarianism and dogmatism. "The relationship of such studies to self-concept theory is not obvious or straightforward," according to Wiley, who reported several conflicting results.<sup>2</sup> On the whole, Wiley did state that most of the findings did show a positive correlation between self-acceptance and acceptance of others; a negative correlation between dogmatism and self-acceptance.<sup>3</sup>

Perez assumed that a teacher's attitude toward team teaching would be inversely related to authoritarianism. He used

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<sup>1</sup>Kaplan and Singer, pp. 487-488.

<sup>2</sup>Wiley, p. 240.

<sup>3</sup>Ibid., p. 243.

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the California F-scale to test this hypothesis on 378 teachers. Except for middle-year teachers, Perez did find a significant, negative correlation.<sup>1</sup>

Findings on research related to self-concept and to dogmatism were inconclusive, even though most of the findings generally supported the theoretical constructs. Part of the difficulty lay in the constructs themselves; part in the research methodology; and part in the elusiveness of the variables.

### Elusiveness of Variables

The ambiguous and conflicting findings, according to Wiley, stem from the lack of proper scientific characteristics of the theories; difficulties in formulating well-grounded research in a new area; conducted research was not part of a planned program; and avoidable methodological flaws.<sup>2</sup> Rogers pointed out, "Openness to experience is not a construct which is easy to measure with our present instruments. . . ."<sup>3</sup> Both the instruments and the constructs presented problems.

Scoring existing instruments was one problem. Peabody said that the Rokeach Dogmatism Scale set up "agreement response tendencies", contained ambiguous terms, and uni-directional responses all of which invalidated the instrument. "The problems of authoritarianism and response bias are complex, and it is

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<sup>1</sup>Joseph F. Perez, "Authoritarianism and Teamwork Disposition in Teacher Personality," Peabody Journal of Education, 43:3 (November, 1965), 214-222.

<sup>2</sup>Wiley, p. 323.

<sup>3</sup>ASCD, p. 25.

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understandable that they have often been considered in terms that are likely to be too simple and categorical."<sup>1</sup> Peabody suggested a way of scoring the instrument which was attempted by Korn and Gidden, who found that the construct validity stated by Rokeach was supported using Peabody's scoring method.<sup>2</sup> Costin found psychology students learned principles but didn't change their misconceptions in human beings. "These findings are consistent with the kind of construct validity which Rokeach has claimed for the dogmatism scale. They are of special interest in view of Peabody's recent criticism."<sup>3</sup>

Rokeach's construct validity appeared to be maintained, while dogmatism and self-concept still appear to be multi-faceted variables. Maslow discussed different outcomes of personality as products of security levels and levels of self-esteem. "Insecure people may be retiring, withdrawing, or hostile and aggressive. Secure people can be either humble or proud, followers or leaders."<sup>4</sup> Adorno mentioned some very low scorers who had features of compulsiveness, paranoid obsessions, and who "with respect to many of our variables, especially rigidity and total thinking could hardly be distinguished from some of our high

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<sup>1</sup> Dean Peabody, "Authoritarianism Scales and Response Bias," Psychological Bulletin, 65:1 (January, 1966), 20.

<sup>2</sup> Harold A. Korn and Norman S. Gidden, "Scoring and Construct Validity of the Dogmatism Scale," Educational and Psychological Measurement, 20:4 (Winter, 1964), 867-874.

<sup>3</sup> Frank Costin, "Dogmatism and the Retention of Psychological Misconceptions," Educational and Psychological Measurement, 28:2 (Summer, 1968), 533.

<sup>4</sup> Maslow, Motivation and Personality, p. 53.

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extremes."<sup>1</sup> Conflicting results appeared to come from weaknesses in theory, weaknesses in methodology, inconsistencies in humans, and ambiguities in reporting methods.

### Self-Concept versus Self-Report

Kerensky said that self-concept is the way a person sees himself whereas the self-report is what he says about himself. As they may be quite different, Kerensky raised questions "regarding measuring phenomena of self with paper and pencil instruments."<sup>2</sup> Combs stated that the self-concept was what a person believed about himself, whereas the self-report was what a person said about himself. "Self-report is essentially an introspection and is no more acceptable as direct evidence of causation in modern phenomenological psychology than in earlier, more traditional schools of thought."<sup>3</sup>

In Individual Behavior Combs discussed the qualifications for using self-report--clarity of subject's awareness, lack of adequate symbols, social expectancy, cooperation, threat and personal adequacy, and change in the field organization. Combs continued, "In spite of these difficulties, however, it is possible to use the subject's own description of events, providing we remain keenly aware of the possibilities of error and make appropriate corrections."<sup>4</sup> Maslow said it more simply,

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<sup>1</sup>Adorno, et al., p. 772.

<sup>2</sup>Kerensky, p. 138.

<sup>3</sup>Arthur W. Combs, Daniel W. Soper, and Clifford C. Courson, "The Measurement of Self-Concept and Self-Report," Educational and Psychological Measurement, 23:3 (Autumn, 1963), 494.

<sup>4</sup>Combs and Snygg, p. 453.



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"Fortunately, however, we can ask the human being and there is no reason in the world why we should refrain from doing so until we have a better source of data."<sup>1</sup>

### Research

Combs appeared to imply that the better source of data would be trained observers. He cited one study where eighteen trained interviewers found no significant relationships between children's self-reports and their inferred self-concepts.<sup>2</sup>

Parker found nearly the same results with a group of children when the child's anonymity was not preserved. When anonymity was preserved, the self-reports and the inferred self-concepts were similar.<sup>3</sup> Parker's findings conflicted with Combs'.

Conflicting research results were not new. Wiley's question is still unanswered:

Again, it remains to be demonstrated whether behavior can be predicted more efficiently by objective measures than by indices of the phenomenal self, or whether adding objective measures to self-concept measures improved the predictions one could make from either type of measure alone.<sup>4</sup>

### Summary of the Chapter

The literature reviewed in this chapter was related to teacher aides and to the growth of the individual. The number

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<sup>1</sup>Maslow, Toward a Psychology of Being, p. 22.

<sup>2</sup>Combs, Soper, and Courson, p. 495.

<sup>3</sup>James Parker, "The Relationship of Self-Report to Inferred Self-Concept," Educational and Psychological Measurement, 26:3 (Autumn, 1966), 691-700.

<sup>4</sup>Wiley, p. 320. (*Italics added*)

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of teacher aides has grown rapidly. Additional funding from the federal and state governments partially led to this growth. Aides have been found to perform a myriad of tasks ranging from strictly clerical tasks to tasks closely related to the teaching-learning process. A trend toward performance of more teaching duties was indicated. Most of the conducted research was opinion-type research, rather than rigorous, empirical research.

The second portion of the chapter was devoted to a review of literature related to man as a conative animal whose needs are arranged in a hierarchical order. Theory and research were reviewed that related to self, self-concept, and perception.

Literature related to dogmatism, open and closed belief systems, authoritarianism, ethnocentricity and rigidity was reviewed. Theory and research related to both variables--self-concept and dogmatism were reviewed. Research findings related to self-concept, dogmatism, authoritarianism, ethnocentricism, self-esteem and self-acceptance presented conflicting and non-conclusive results. Trends toward support of the theories were evident. Literature discussing the lack of clear-cut results indicated that these results were partly due to the incompleteness of the theoretical constructs, the complexity of the variables, and flaws in research design and methodology.

The state of the literature regarding teacher aides, self-concept, and dogmatism is encouraging in the sense that the theories supporting the three variables appear to be sound, valuable, and good, but discouraging in the sense that so little was definite.

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## CHAPTER III

### PROCEDURE AND METHODOLOGY

#### Design of the Study

This investigation consisted of three phases:

Phase I--A survey of Middle Cities proposals to determine the settings in which aides were to be employed, the duties they were expected to perform, and the number of paraprofessionals and professionals that were to be employed.

Phase II--A series of interviews with school superintendents, principals, trainers, teachers, and aides involved in Middle Cities projects.

Phase III--A quantification of specific behaviors and emotions of aides. Also included was a preliminary investigation on the relevancy of self-concept and/or dogmatic attitudes in the performance of aide duties.

#### Selection of Middle Cities Projects

The number of schools employing aides has been growing rapidly throughout the country. Some schools have been using aides for several years, others began utilizing their services only recently. A sample of schools was sought that offered a wide range of aide duties and yet was similar enough in project time and experience to produce comparable results.

The Middle Cities Projects were selected as the general sample for the following reasons:

1. Each project was begun in the school year 1968-69, which created a comparatively equal length of time.

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2. All the projects were initiated as a result of the State Aid Act and have as their purpose the reduction of adult/pupil ratios in the classroom.
3. Each project had written a proposal specifying in detail the aims, goals, and objectives of the project.
4. All districts were located in Michigan and included urban and rural areas, as well as large and small cities.
5. The projects were similar in the sense that they worked with students who were economically or culturally deprived.

#### Sample Limitations

All schools were located in Michigan and served disadvantaged children. While the possibility of generalizing conclusions was severely restricted, the accessibility of data, the opportunities to conduct interviews and to work in depth in one project seemed to offset the disadvantage of restricted generalizability.

#### Phase One

In order to develop baseline data, thirty-seven proposals representing forty-eight schools were surveyed. The number of personnel, both professional and paraprofessional, and their roles were studied. Data gathered indicated the antecedent expectations of the projects, and served as indicators of change or trends during the course of the projects.



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One standard form was used for all proposals, but great differences appeared in organization, detail, and style. Some proposals told the exact number of schools; others did not. Some schools listed the specific duties of the aides; others did not. Some schools reported changes in their plans immediately; others did not. Some districts wrote one proposal that included several schools; others wrote one proposal for each school.

Thus, although the figures reported are not exact, they do give indications of ratios between paraprofessionals and professionals, the types of roles teachers and aides were expected to perform, and a description of many of the specific duties of the aides.

### Reporting Method

A non-statistical, narrative form was used to report the data. Trends, indications, and intentions were the objectives of the surveys.

### Phase Two--Interviews

Interviews were conducted with superintendents, principals, trainers, teachers, and aides to determine the types of tasks aides performed, the changes in these tasks, and the problems, trends, and significant components of teacher-aide relationships.

### Selecting the Sample School Districts

Accessibility limited the school districts to the southern part of Michigan. Schools within the districts were to reflect successful and unsuccessful projects. The school sample was to

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include large and small schools as to provide a cross section of the Middle Cities schools.

A list of ten districts was certified by the Coordinator of Middle Cities Projects as representing the desired cross section.

#### Permission to Conduct Interviews

Letters requesting permission to conduct interviews (appendix A) were sent to the ten school districts. Eight of the districts responded favorably, but one of the eight did not employ aides and was eliminated from the interviewing procedure. Two districts did not respond. The Coordinator of Middle Cities Projects again stated that these eight districts were representative.

#### Structure of the Interview

Each interviewee was assured that his remarks would be grouped with the statements of others for reporting, thus preserving individual anonymity. Interviews were open-ended with a minimum amount of structure. Each person interviewed received a copy of the following questions, but were encouraged to deviate from the structure and to talk about the things that they felt were most important.

1. Has the role of the aide changed during the project?
2. What changes are planned in the program next year?
3. How do you think the role and numbers of aides will change in the next five to ten years?

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4. Please describe the attitudes of the personnel at the beginning of the project and now.
5. Have your personal feelings changed?
6. What appear to be the major factors leading to successful use of aides?
7. What appear to be the major factors inhibiting successful use of aides?

Abbreviated notes and some direct quotes were taken during the interviews. Usually additional comments were added immediately following the interview.

#### Times and Number of Interviews

A total of forty-nine interviews were conducted. Four superintendents, seven principals, three trainers, eighteen teachers, and seventeen aides were interviewed over a five-day period. Interviews ranged from fifteen minutes to forty-five minutes in length. The average time was twenty-five minutes.

The letter giving permission to conduct interviews directed the interviewer to the superintendent or to a principal. The building principal arranged the interviewing procedures within the building. Usually, the interviewer was allowed to randomly ask permission for an interview from the teachers and aides, although in some cases the order was prescribed by the principal.

#### Reporting Procedures

Three approaches were used to analyze the data from the interviews:

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1. A gestalt of the relationship of the interviewer's over-all reactions to the sum total of the interviews. No attempt was made to distinguish among schools, school districts, or personnel.
2. A horizontal, question-by-question analysis which examined all responses to the same questions.
3. A vertical analysis that attempted to elicit the significant findings of each interview.

#### Phase Three--Quantification of Performance

The objectives for Phase III were to determine whether or not aides were performing tasks identified as teacher only tasks; to assess aides' feelings about their work; and to discover if aides were performing home counseling, self-assessment, planning, and learning reinforcement activities. The second part of Phase III correlated self-concept and dogmatism to the above categories.

#### Selection of Sample School

A decision was made to sacrifice generalizability in order to gain control of the dependent variables. Certain aide behaviors were objectives in one district, but taboos in another. A questionnaire broad enough to measure a totality of "professional" behavior by the aide would have been too long. Therefore, one school, located in southern Michigan became the sample population for the following reasons:

1. Project goals included a broad range of activities for aides without usual restrictions.



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2. Cooperation was assured.
3. Opportunities to administer instruments, conduct interviews, and observe teacher and aide behavior was provided.
4. Aides and teachers were paired into teams.

### Limitations

Generalizability was lost, and the small number of teams increased the difficulty of obtaining statistically significant correlations.<sup>1</sup> Because the correlations between self-concept, dogmatism and the performance of duties by aides was intended as an exploratory study, the small number of teams was not inconsistent with accepted practice.<sup>2</sup>

### Instruments Utilized

Three instruments were administered in the study--The Tennessee Self-Concept Scale, Rokeach Dogmatism Scale--Form D, and an Aide Questionnaire which was developed for this study.

### Teacher Only Tasks

Thirty-nine items on the Aide Questionnaire were tasks that had been identified as appropriate for teachers only in a previous study conducted by R. A. Moon.<sup>3</sup>

Moon submitted a list of duties to five separate groups of people--aides, teachers, principals, college teachers, and

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<sup>1</sup> Jum Nunnally, "The Place of Statistics in Psychology," Educational and Psychological Measurement, 20:4 (Winter, 1960), 643.

<sup>2</sup> Arnold M. Rose, Theory and Method in the Social Sciences (Minneapolis: University of Minnesota Press, 1954), p. 310.

<sup>3</sup> R. Arden Moon, pp. 61-69.

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Moon submitted a list of duties to five separate groups of people--aides, teachers, principals, college teachers, and nationally known experts. Each person was asked to rate each duty on a five-point scale, the lower ratings indicated that the particular duty was appropriate only for the teacher.

Thirty-nine duties were considered to be inappropriate for aides by the five groups involved in Moon's study. These thirty-nine items were separated into four categories based on the mean scores each item received from each group of respondents. Group 1 consisted of nine tasks which had group mean scores of 2.0 or less. Group 2 consisted of nine items with group mean scores of 2.0 or less, except for the group of experts who rated the items higher. Group 3 consisted of six items whose group mean scores were between 2.0 and 2.5. Group 4 consisted of fifteen items with group mean scores between 2.0 and 2.5, except for the group of experts who rated the items higher.

#### Aide Questionnaire

All thirty-nine teacher only tasks identified by Moon were included in the new instrument. In addition to Moon's items, questions were developed to determine whether or not aides performed duties in the areas of learning reinforcement, planning, self-assessment, and home counseling. The sentiments of aides were also assessed.

Item Validity.--All items were submitted to a panel of seven educators, who classified each item according to the above categories. The panel indicated those items that were vague, ambiguous, inappropriate, or fitted no category well.

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Items on which less than five of the seven experts agreed were deleted from the final questionnaire if they were not one of the thirty-nine teacher-only items. Appendix B gives an item by item summary of the experts' ratings.

Organization.--The final form of the questionnaire included seventy-nine items randomly arranged.<sup>1</sup> Sixteen of Moon's teacher-only items were not assigned to any specific category by the seven experts. Learning reinforcement activities consisted of twenty different items; the number of items in the other categories ranged from nine to fourteen. Table 3.1 indicates the number of items in each category. Appendix C shows the final form of the questionnaire.

Table 3.1.--Number of items in categories.

Items	Teacher Only (Non-cate- gorized)	Learning Reinforce- ment	Plan- ning	Self Assess- ment	Home Counsel- ing	Feel- ings	Total
Total Items in Each Category	16	20	14	9	9	11	79
Teacher-Only Items in Each Cate- gory	16	7	14	0	2	0	39

Scoring.--Team scores were computed for each teacher-aide team. Team scores were the arithmetic means of each team's responses by category--learning reinforcement, planning, home

<sup>1</sup> Allen L. Edwards, Experimental Design in Psychological Research (3rd ed., New York: Holt, Rinehart, and Winston, Inc., 1968), p. 392.

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counseling, self-assessment, and sentiments. A total performance score was derived that represented a summation of all categories. It was assumed that the derived mean score would reflect a more realistic frequency of behavior than either the aide's or teacher's perceptions individually.

Team Similarity Scores.--Similarity or discrepancy scores were computed by awarding a teacher-paraprofessional team three points when both the teacher and the paraprofessional responded identically to an item on the Aide Questionnaire. When the teacher and the aide responded in adjacent columns (Never-Seldom; Seldom-Often; or Often-Very Often) the team received two points. A one-column disparity between the two responses (Never-Often; Seldom-Very Often) received one point, and responses two columns apart (Never-Very Often) received no points. The higher the team similarity score, the closer the perceptions of the teacher and the aide-partner. Team similarity scores were then correlated with self-concept and dogmatism scores.

#### Tennessee Self-Concept Scale

The Tennessee Self-Concept Scale (hereafter referred to as the TSCS), was selected as the instrument to measure self-concepts. The TSCS was developed to meet the need for a self-concept scale that was widely applicable and well-standardized.<sup>1</sup> The test consists of several categories, but for the purpose of this investigation the "Total Positive Score" was used as the measure of self-concept.

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<sup>1</sup>William H. Fitts, Tennessee Self-Concept Scale (Nashville: Counselor Recordings and Tests, 1965), p. 1.



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Total P Score. This is the most important single score on the Counseling Form. It reflects the overall level of self esteem. Persons with high scores tend to like themselves, feel that they are persons of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful about their own worth; see themselves as undesirable; often feel anxious, depressed, and unhappy; and have little faith or confidence in themselves.<sup>1</sup>

Reliability.--The reliability coefficient that was obtained on a two-week test-retest basis with sixty college students was .92.<sup>2</sup> Fitts cited a Congdon study that used a shortened version of the TSCS with psychiatric patients and "still obtained a reliability coefficient of .88 for the Total Positive Score."<sup>3</sup>

Validity.--Fitts discussed four kinds of validation procedures and related them to the TSCS. Content validity was assumed as each item had been included only if there was unanimous agreement among a panel of judges. Discrimination Between Groups was indicated by differences between patient and non-patient groups and even within patient groups. The TSCS was correlated with other measures, including the MMPI and Edwards Personal Preference Scale, as well as others.

The last kind of validity procedure Fitts discussed was Personality Changes Under Particular Conditions. The TSCS did reflect predicted changes in self-concepts in a series of experiments. Thus, the four kinds of validity procedures constituted evidence that indicated the validity of the TSCS.<sup>4</sup>

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<sup>1</sup>Ibid., p. 2.

<sup>2</sup>Ibid., p. 14.

<sup>3</sup>Ibid., p. 15.

<sup>4</sup>Ibid., pp. 17-30.

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## Rokeach Dogmatism Scale

The Rokeach Dogmatism Scale, Form D, hereafter referred to as the RDS, was employed to determine changes in dogmatic attitudes on the part of the paraprofessionals and the teachers. Form D of the RDS consisted of sixty-six items with positive numerical scores assigned to responses that agreed with the items, and negative values assigned to disagreement with the item. Therefore, "agreement was scored as closed, and disagreement as open."<sup>1</sup>

Reliability.--Form D of the RDS achieved the highest reliability coefficient of the various forms of the scale. On a test-retest basis, involving 137 cases, a reliability of .91 was obtained. Rokeach stated, "These reliabilities are considered to be quite satisfactory, especially when we remember that the Dogmatism Scale contains quite a strange collection of items that cover a lot of territory and appear on the surface to be unrelated to each other."<sup>2</sup>

## Administration of Instruments

A pre-test, post-test design was used for the TSCS and the RDS. Pre-tests were given in March, 1969; post-tests and Aide Questionnaire were administered in May, 1969. Teachers and aides were instructed to fill out the questionnaire in terms of the aide's performance.

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<sup>1</sup>Rokeach, The Open and Closed Mind, p. 73.

<sup>2</sup>Ibid., p. 90.

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### Combined Team Scores

Combined team scores for self-concept were derived by multiplying the TSCS score of the aide with the TSCS score of the teacher-partner. The same procedure was applied to the RDS scores, in accord with the procedure described by Lee J. Cronbach.<sup>1</sup>

### Reporting Procedures

Phase III was an attempt to answer two basic questions:

1. Did paraprofessionals actually perform teacher-only, learning reinforcement, planning, home counseling, and self-assessment activities; and how did the aides feel about their work?
2. Were self-concept and dogmatism relevant variables in the performance of the categorized duties by the paraprofessionals?

#### Question One

The intent of question one was to determine the performance of aides in specific areas and their feelings about their work. No statistical approach was employed. Responses by team scores, (the mean scores of each teacher-aide team) teachers' cumulative scores and aide cumulative scores were reported. Comparisons were made of each set of scores.

#### Question Two

The intent of the second question was to determine whether or not self-concept and dogmatism were variables relevant

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<sup>1</sup>Lee J. Cronbach, "Intelligence? Creativity? A Parsimonious Reinterpretation of the Wallach-Kogan Data," American Education Research Journal, 5:4 (November, 1968), 491-512.

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ough to warrant further research. Hypotheses were developed relating self-concept and dogmatism to each of the categories; the decision to recommend or not to recommend more rigorous research was based on a gestalt of the findings rather than on the strict rules of statistical acceptance or rejection. The likelihood of a Type I error appeared to be high with the small sample in this study ( $N=13$  pairs for the TSCS and  $N=9$  pairs for the S. Baken warned that danger of a Type One error was that too often further research ceased. Nevertheless, an arbitrary alpha was set at .05 for each hypothesis.

### Hypotheses

Question Two, Phase III of the study investigated changes in self-concepts, changes in dogmatic attitudes, relationships between self-concept and dogmatism, and relationships between self-concept and/or dogmatism and the performance of duties by aides in each of the prescribed areas. That is, the total performance as defined by the Aide Questionnaire, learning reinforcement activities, planning duties, home counseling tasks, self-assessment activities, and positive sentiments. The following hypotheses were stated as research hypotheses in literary form, then as research ( $H_1$ ) and null ( $H_0$ ) hypotheses in test form. Alpha was set at .05, one-tailed test. Hypotheses 4 through 17 were expressed both in the test form related to the research hypotheses and in the form actually tested.

Hypothesis 1a: Teachers and aides would indicate more positive self-concepts at the conclusion of the project than at its inception.



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$$H_0: S(T.A, po) = S(T.A, pr)$$

Legend: S = Self-concept scores

T = Of teachers

A = Of aides

T.A = Of teachers and aides combined

Pr = Pre-test

Po = Post-test

Hypothesis 1b: Aides would indicate more positive self-concepts at the conclusion of the project than at its inception.

$$H_1: S(A, po) > S(A, pr)$$

$$H_0: S(A, po) = S(A, pr)$$

Hypothesis 1c: Teachers would indicate more positive self-concepts at the conclusion of the project than at its inception.

$$H_1: S(T, po) > S(T, pr)$$

$$H_0: S(T, po) = S(T, pr)$$

Hypothesis 2a: Teachers and aides would indicate a reduction in dogmatic attitudes at the conclusion of the project.

$$H_1: D(T.A, po) < D(T.A, pr)$$

$$H_0: D(T.A, po) = D(T.A, pr)$$

Legend: D = Dogmatism scores

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Hypothesis 2b: Aides would indicate a reduction in dogmatic attitudes at the conclusion of the project.

$$H_1: D(A, po) < D(A, pr)$$

$$H_0: D(A, po) = D(A, pr)$$

Hypothesis 2c: Teachers would indicate a reduction in dogmatic attitudes at the conclusion of the project.

$$H_1: D(T, po) < D(T, pr)$$

$$H_0: D(T, po) = D(T, pr)$$

Hypothesis 3a: Teachers and aides would indicate a negative correlation between their self-concepts and dogmatic attitudes.

$$H_1: r(S, T.A) (D, T.A) < 0$$

$$H_0: r(S, T.A) (D, T.A) = 0$$

Legend:  $r(S, T.A) (D, T.A)$  = Self-concept scores of teachers and aides combined, correlated with dogmatism scores of teachers and aides combined.

Hypothesis 3b: Aides would indicate a negative correlation between their self-concepts and dogmatic attitudes.

$$H_1: r(S, A) (D, A) < 0$$

$$H_0: r(S, A) (D, A) = 0$$

Hypothesis 3c: Teachers would indicate a negative correlation between their self-concepts and dogmatic attitudes.

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$$H_1: r(S,T) (D,T) < 0$$

$$H_0: r(s,T) (D,T) = 0$$

Hypotheses 4-17: Each of the hypotheses in series four seventeen was tested in the following form:

$H_0$ : There would be a zero relationship between the dependent variables and the independent variables.

$H_1$ : There would be a positive, non-zero relationship between the dependent variables and the independent variables.

$$H_0: R = 0$$

$$H_1: R > 0$$

Legend:  $R$  = multiple regression coefficient in the "a" hypotheses, and the simple correlation coefficient ( $r$ ) in the "b", "c", and "d" hypotheses.

A series of hypotheses consisted of the multiple regression (H-A) and three simple correlations (H-b, H-c, and H-d). Series was tested in the same order. Dependent and independent variables remained the same within any given series.

H-a: Multiple regression analyses between the dependent variable and the three independent variables.

H-b: Dependent variable and the aides independent variable.

H-c: Dependent variable and the teachers independent variable.

H-d: Dependent variable and the team independent variable.

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it variables:

Total Performance (H4; H11)

Learning Reinforcement Activities (H5; H12)

Planning Activities (H6; H13)

Home Counseling (H7; H14)

Self-Assessment (H8; H15)

Sentiments (H9; H16)

Similarity Scores (H10; H17)

dent variables:

Aide Self-Concept (H4--H10)

Teacher Self-Concept (H4--H10)

Team Self-Concept (H4--H10)

Aide Dogmatism (H11--H17)

Teacher Dogmatism (H11--H17)

Team Dogmatism (H11--H17)

The following descriptions of hypotheses four through  
 en are offered to clarify the intent of the investigation.  
 the following hypotheses was tested in the null form of  
 ve description.

Hypothesis 4a: The combined total performance scores of  
 aides with high self-concepts, aides working with teachers  
 who had high self-concepts, and aides working in teams  
 with high combined self-concept scores would be greater  
 than the combined total performance scores of aides with  
 low self-concepts, aides working with teachers with low  
 self-concepts, and aides working in teams with low com-  
 bined self-concept scores.



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$$H_1: P(A1) + P(A.T1) + P(A.C1) > P(A2) + P(A.T2) + P(A.C2)$$

$$H_0: P(A1) + P(A.T1) + P(A.C1) = P(A2) + P(A.T2) + P(A.C2)$$

Legend: P = Total Performance Scores

A.T = Of aides working with teacher partners

A.C = Of aides working in teams with combined  
scores

1 = Who (which) have high self-concept scores

2 = Who (which) have low self-concept scores

Hypothesis 4b: Aides with more positive self-concepts would achieve higher total performance scores than aides with less positive self-concepts.

$$H_1: P(A1) > P(A2)$$

$$H_0: P(A1) = P(A2)$$

Hypothesis 4c: Aides working with teachers with more positive self-concepts would achieve higher total performance scores than aides working with teachers with less positive self-concepts.

$$H_1: P(A.T1) > P(A.T2)$$

$$H_0: P(A.T1) = P(A.T2)$$

Hypothesis 4d: Aides who worked in teams with more positive combined self-concept scores would achieve higher total performance scores than aides who worked in teams with less positive combined self-concept scores.

$$H_1: P(A.C1) > P(A.C2)$$

$$H_0: P(A.C1) = P(A.C2)$$

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Hypothesis 5a: The combined learning reinforcement activity scores of aides with high self-concepts, aides working with teacher-partners who had high self-concepts, and aides working in teams with high combined self-concepts would be greater than the combined learning reinforcement activity scores of aides with low self-concepts, aides working with teachers with low self-concepts, and aides working in teams with low self-concept scores.

$$H_1: L(A1) + L(A.T1) + L(A.C1) > L(A2) + L(A.T2) + L(A.C2)$$

$$H_0: L(A1) + L(A.T1) + L(A.C1) = L(A2) + L(A.T2) + L(A.C2)$$

Legend: L = Learning reinforcement activity scores

Hypothesis 5b: Aides with more positive self-concepts would perform acts related to learning reinforcement activities more frequently than aides with low self-concepts.

$$H_1: L(A1) > L(A2)$$

$$H_0: L(A1) = L(A2)$$

Hypothesis 5c: Aides working with teachers with higher self-concepts would perform acts related to learning reinforcement activities more frequently than aides working with teachers with low self-concept scores.

$$H_1: L(A.T1) > L(A.T2)$$

$$H_0: L(A.T1) = L(A.T2)$$

Hypothesis 5d: Aides working in teams with higher combined self-concept scores would perform acts related to

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learning reinforcement activities more frequently than aides working in teams with lower self-concept combination scores.

$$H_1: L(A.C1) > L(A.C2)$$

$$H_0: L(A.C1) = L(A.C2)$$

Hypothesis 6a: Planning activity scores of aides with high self-concepts, aides working with teachers with high self-concepts, and aides working in teams with high combined self-concepts would be greater than the combined planning activity scores of aides with low self-concepts, aides working with teachers with low self-concepts, and aides working in teams with low combined self-concepts.

$$H_1: B(A1) + B(A.T1) + B(A.C1) > B(A2) + B(A.T2) + B(A.C2)$$

$$H_0: B(A1) + B(A.T1) + B(A.C1) = B(A2) + B(A.T2) + B(A.C2)$$

Legend: B = Planning activity scores

Hypothesis 6b: Aides with more positive self-concepts would perform acts related to planning activities more frequently than aides with low self-concepts.

$$H_1: B(A1) > B(A2)$$

$$H_0: B(A1) = B(A2)$$

Hypothesis 6c: Aides working with teachers with high self-concept scores would perform acts related to planning activities more frequently than aides working with teachers with low self-concept scores.

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$$H_1: B(A.T1) > B(A.T2)$$

$$H_0: B(A.T1) = B(A.T2)$$

Hypothesis 6d: Aides working in teams with higher combined self-concept scores would perform acts related to planning activities more frequently than aides working in teams with lower self-concept combined scores.

$$H_1: B(A.C1) > B(A.C2)$$

$$H_0: B(A.C1) = B(A.C2)$$

Hypothesis 7a: The combined home counselor scores of aides with high self-concepts, aides working with teachers with high self-concepts, and aides working in teams with high combined self-concepts would be greater than the combined home counselor scores of aides with low self-concepts, aides working with teachers with low self-concepts, and aides working in teams with low combined self-concepts.

$$H_1: H(A1) + H(A.T1) + H(A.C1) > H(A2) + H(A.T2) + H(A.C2)$$

$$H_0: H(A1) + H(A.T1) + H(A.C1) = H(A2) + H(A.T2) + H(A.C2)$$

Legend: H = Home counseling scores

Hypothesis 7b: Aides with more positive self-concepts would perform acts related to home counseling duties more frequently than aides with low self-concepts.

$$H_1: H(A1) > H(A2)$$

$$H_0: H(A1) = H(A2)$$



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Hypothesis 7c: Aides working with teachers with higher self-concept scores would perform acts related to home counseling duties more frequently than aides working with teachers with low self-concept scores.

$$H_1: H(A.T1) > H(A.T2)$$

$$H_0: H(A.T1) = H(A.T2)$$

Hypothesis 7d: Aides working in teams with higher combined self-concept scores would perform acts related to home counseling duties more frequently than aides working in teams with lower self-concept combined scores.

$$H_1: H(A.C1) > H(A.C2)$$

$$H_0: H(A.C1) = H(A.C2)$$

Hypothesis 8a: The combined self-assessment scores of aides with high self-concepts, aides working with teachers with high self-concepts, and aides working in teams with high combined self-concepts would be greater than the combined self-assessment scores of aides with low self-concepts, aides working with teachers with low self-concepts, and aides working in teams with low combined self-concepts.

$$H_1: I(A1) + I(A.T1) + I(A.C1) > I(A2) + I(A.T2) + I(A.C2)$$

$$H_0: I(A1) + I(A.T1) + I(A.C1) = I(A2) + I(A.T2) + I(A.C2)$$

Legend: I = Self-assessment scores

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Hypothesis 8b: Aides with more positive self-concepts would perform acts related to self-assessment activities more frequently than aides with lower self-concept scores.

$$H_1: I(A1) > I(A2)$$

$$H_0: I(A1) = I(A2)$$

Hypothesis 8c: Aides working with teachers with higher self-concept scores would perform acts related to self-assessment activities more frequently than aides working with teachers with low self-concept scores.

$$H_1: I(A.T1) > I(A.T2)$$

$$H_0: I(A.T1) = I(A.T2)$$

Hypothesis 8d: Aides working in teams with higher combined self-concept scores would perform acts related to self-assessment activities more frequently than would aides working in teams with lower self-concept combined scores.

$$H_1: I(A.C1) > I(A.C2)$$

$$H_0: I(A.C1) = I(A.C2)$$

Hypothesis 9a: The combined positive sentiment scores of aides with high self-concepts, aides working with teachers with high self-concepts, and aides working in teams with high combined self-concepts would be greater than the combined positive sentiment scores of aides with low self-concepts, aides working with teachers with low self-concepts, and aides working in teams with low combined self concepts.

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$$H_1: F(A1)+F(A.T1)+F(A.C1) > F(A2)+F(A.T2)+F(A.C2)$$

$$H_0: F(A1)+F(A.T1)+F(A.C1) = F(A2)+F(A.T2)+F(A.C2)$$

Legend: F = positive sentiment scores

Hypothesis 9b: Aides with more positive self-concepts would indicate more positive sentiments than aides with less positive self-concepts.

$$H_1: F(A1) > F(A2)$$

$$H_0: F(A1) = F(A2)$$

Hypothesis 9c: Aides working with teachers with more positive self-concept scores would indicate more positive sentiments than aides working with teachers with less positive self-concept scores.

$$H_1: F(A.T1) > F(A.T2)$$

$$H_0: F(A.T1) = F(A.T2)$$

Hypothesis 9d: Aides working in teams with higher combined self-concept scores would indicate more positive sentiments than aides working in teams with less positive combined self-concept scores.

$$H_1: F(A.C1) > F(A.C2)$$

$$H_0: F(A.C1) = F(A.C2)$$

Hypothesis 10a: The combined team similarity scores from teams with aides who had high self-concepts, from teams with teachers with high self-concepts, and teams with high combined self-concepts scores would be greater than the combined team similarity scores from teams with

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aides who had low self-concepts, teams with teachers with low self-concepts, and teams with low combined self-concept scores.

$$H_1: E(A1) + E(T1) + E(C1) > E(A2) + E(T2) + E(C2)$$

$$H_0: E(A1) + E(T1) + E(C1) = E(A2) + E(T2) + E(C2)$$

Legend: E = Team similarity scores

Hypothesis 10b: Teams with high similarity scores would have aides who had more positive self-concepts than the aides from teams with low similarity scores.

$$H_1: E(A1) > E(A2)$$

$$H_0: E(A1) = E(A2)$$

Hypothesis 10c: Teams with high similarity scores would have teachers who had more positive self-concepts than the teachers from teams with low similarity scores.

$$H_1: E(T1) > E(T2)$$

$$H_0: E(T1) = E(T2)$$

Hypothesis 10d: Teams with high similarity scores would have higher self-concept combination scores than teams with low similarity scores.

$$H_1: E(C1) > E(C2)$$

$$H_0: E(C1) = E(C2)$$

Hypothesis 11a: The combined total performance scores of aides with low dogmatism scores, aides working with teachers with low dogmatism scores, and aides from teams with low combined dogmatism scores would be greater than



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the combined total performance scores of aides with high dogmatism scores, aides working with teachers with high dogmatism scores, and aides from teams with high combined dogmatism scores.

$$H_1: P(A3)+P(A.T3)+P(A.C3) > P(A4)+P(A.T4)+P(A.C4)$$

$$H_0: P(A3)+P(A.T3)+P(A.C3) = P(A4)+P(A.T4)+P(A.C4)$$

Legend: 3 = Low dogmatism score

4 = High dogmatism score

Hypothesis 11b: Aides who indicated low dogmatic attitudes would have higher combined total performance scores than aides who indicated high dogmatic attitudes.

$$H_1: P(A3) > P(A4)$$

$$H_0: P(A3) = P(A4)$$

Hypothesis 11c: Aides who worked with teachers who indicated low dogmatic attitudes would have higher combined total performance scores than aides who worked with teachers with high dogmatic attitudes.

$$H_1: P(A.T3) > P(A.T4)$$

$$H_0: P(A.T3) = P(A.T4)$$

Hypothesis 11d: Aides who worked in teams with low dogmatic combined scores would have higher combined total performance scores than aides who worked in teams with high dogmatic combined scores.

$$H_1: P(A.C3) > P(A.C4)$$

$$H_0: P(A.C3) = P(A.C4)$$

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Hypothesis 12a: The combined learning reinforcement activity scores of aides with low dogmatism scores, aides working with teachers with low dogmatism scores, and aides from teams with low combined dogmatism scores would be greater than the combined learning reinforcement activity scores of aides with high dogmatism scores, aides working with teachers with high dogmatism scores, and aides from teams with high combined dogmatism scores.

$$H_1: L(A3) + L(A.T3) + L(A.C3) > L(A4) + L(A.T4) + L(A.C4)$$

$$H_0: L(A3) + L(A.T3) + L(A.C3) = L(A4) + L(A.T4) + L(A.C4)$$

Hypothesis 12b: Aides who indicated low dogmatic attitudes would perform more acts related to learning reinforcement activities than aides with high dogmatic attitudes.

$$H_1: L(A3) > L(A4)$$

$$H_0: L(A3) = L(A4)$$

Hypothesis 12c: Aides who worked with teachers who had low dogmatic attitudes would perform more acts related to learning reinforcement activities than aides who worked with teachers with high dogmatic attitudes.

$$H_1: L(A.T3) > L(A.T4)$$

$$H_0: L(A.T3) = L(A.T4)$$

Hypothesis 12d: Aides who worked in teams with low dogmatic combined scores would perform more acts related to learning reinforcement activities than

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aides who worked in teams with high dogmatic combined scores.

$$H_1: L(A.C3) > L(A.C4)$$

$$H_0: L(A.C3) = L(A.C4)$$

Hypothesis 13a: The combined planning activity scores of aides with low dogmatism scores, aides working with teachers with low dogmatism scores, and aides from teams with low combined dogmatism scores would be greater than the combined planning activity scores of aides with high dogmatism scores, aides working with teachers with high dogmatism scores, and aides from teams with high combined dogmatism scores.

$$H_1: B(A3) + B(A.T3) + B(A.C3) > B(A4) + B(A.T4) + B(A.C4)$$

$$H_0: B(A3) + B(A.T3) + B(A.C3) = B(A4) + B(A.T4) + B(A.C4)$$

Hypothesis 13b: Aides who indicated low dogmatic attitudes would perform more acts related to planning activities than would aides who indicated high dogmatic attitudes.

$$H_1: B(A3) > B(A4)$$

$$H_0: B(A3) = B(A4)$$

Hypothesis 13c: Aides who worked with teachers who indicated low dogmatic attitudes would perform more acts related to planning activities than would aides who worked with teachers who indicated high dogmatic attitudes.

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$$H_1: B(A.T3) > B(A.T4)$$

$$H_0: B(A.T3) = B(A.T4)$$

Hypothesis 13d: Aides who worked in teams with low dogmatic combination scores would perform more acts related to planning activities than aides who worked in teams with high dogmatic combination scores.

$$H_1: B(A.C3) > B(A.C4)$$

$$H_0: B(A.C3) = B(A.C4)$$

Hypothesis 14a: The combined counseling scores of aides with low dogmatism scores, aides working with teachers with low dogmatism scores, and aides from teams with low combined dogmatism scores would be greater than the combined home counseling scores of aides with high dogmatism scores, aides working with teachers with high dogmatism scores, and aides from teams with high combined dogmatism scores.

$$H_1: H(A3) + H(A.T3) + H(A.C3) > H(A4) + H(A.T4) + H(A.C4)$$

$$H_0: H(A3) + H(A.T3) + H(A.C3) = H(A4) + H(A.T4) + H(A.C4)$$

Hypothesis 14b: Aides who indicated low dogmatic attitudes would perform more acts related to home counseling duties than would aides who indicated high dogmatic attitudes.

$$H_1: H(A3) > H(A4)$$

$$H_0: H(A3) = H(A4)$$



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Hypothesis 14c: Aides who worked with teachers who indicated low dogmatic attitudes would perform more acts related to home counseling activities than would aides who worked with teachers who indicated high dogmatic attitudes.

$$H_1: H(A.T3) > H(A.T4)$$

$$H_0: H(A.T3) = H(A.T4)$$

Hypothesis 14d: Aides who worked in teams with low dogmatic combination scores would perform more acts related to home counseling duties than aides who worked in teams with high dogmatic combination scores.

$$H_1: H(A.C3) > H(A.C4)$$

$$H_0: H(A.C3) = H(A.C4)$$

Hypothesis 15a: The combined self-assessment scores of aides with low dogmatism scores, aides working with teachers with low dogmatism scores, and aides from teams with low combined dogmatism scores would be greater than the combined self-assessment activity scores of aides with high dogmatism scores, aides working with teachers with high dogmatism scores, and aides from teams with high combined dogmatism scores.

$$H_1: I(A3) + I(A.T3) + I(A.C3) > I(A4) + I(A.T4) + I(A.C4)$$

$$H_0: I(A3) + I(A.T3) + I(A.C3) = I(A4) + I(A.T4) + I(A.C4)$$

Hypothesis 15b: Aides who indicated low dogmatic attitudes would perform more acts related to self-assessment

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activities than would aides who indicated high dogmatic attitudes.

$$H_1: I(A3) > I(A4)$$

$$H_0: I(A3) = I(A4)$$

Hypothesis 15c: Aides who worked with teachers who indicated low dogmatic attitudes would perform more acts related to self-assessment activities than aides who worked with teachers who indicated high dogmatic attitudes.

$$H_1: I(A.T3) > I(A.T4)$$

$$H_0: I(A.T3) = I(A.T4)$$

Hypothesis 15d: Aides who worked in teams with low dogmatic attitude scores would perform more acts related to self-assessment activities than aides who worked in teams with high dogmatic attitude scores.

$$H_1: I(A.C3) > I(A.C4)$$

$$H_0: I(A.C3) = I(A.C4)$$

Hypothesis 16a: The combined positive sentiment scores of aides with low dogmatism scores, aides working with teachers with low dogmatism scores, and aides from teams with low combined dogmatism scores would be greater than the combined positive sentiment scores of aides with high dogmatism scores, aides working with teachers with high dogmatism scores, and aides from teams with high combined dogmatism scores.

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$$H_1: F(A3) + F(A.T3) + F(A.C3) > F(A4) + F(A.T4) + F(A.C4)$$

$$H_0: F(A3) + F(A.T3) + F(A.C3) = F(A4) + F(A.T4) + F(A.C4)$$

Hypothesis 16b: Aides who indicated low dogmatic attitudes would demonstrate more positive sentiments than aides who indicated high dogmatic attitudes.

$$H_1: F(A3) > F(A4)$$

$$H_0: F(A3) = F(A4)$$

Hypothesis 16c: Aides who worked with teachers who indicated low dogmatic attitudes would demonstrate more positive sentiments than aides who worked with teachers who indicated high dogmatic attitudes.

$$H_1: F(A.T3) > F(A.T4)$$

$$H_0: F(A.T3) = F(A.T4)$$

Hypothesis 16d: Aides who worked in teams with low dogmatic attitude scores would demonstrate more positive sentiments than aides who worked in teams with high dogmatic attitude scores.

$$H_1: F(A.C3) > F(A.C4)$$

$$H_0: F(A.C3) = F(A.C4)$$

Hypothesis 17a: The combined team similarity scores of aides with low dogmatism scores, aides working with teachers with low dogmatism scores, and aides from teams with low combined dogmatism scores would be greater than the combined team similarity scores of aides with high dogmatism scores, aides working with teachers

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with high dogmatism scores, and aides from teams with high combined dogmatism scores.

$$H_1: E(A3) + E(T3) + E(C3) > E(A4) + E(T4) + E(C4)$$

$$H_0: E(A3) + E(T3) + E(C3) = E(A4) + E(T4) + E(C4)$$

Hypothesis 17b: Teams with high similarity scores would have aides who had lower dogmatic attitudes than the aides on teams with low similarity scores.

$$H_1: E(A3) > E(A4)$$

$$H_0: E(A3) = E(A4)$$

Hypothesis 17c: Teams with high similarity scores would have teachers who have lower dogmatic attitudes than teachers on teams with low similarity scores.

$$H_1: E(T3) > E(T4)$$

$$H_0: E(T3) = E(T4)$$

Hypothesis 17d: Teams with high similarity scores would have lower dogmatic combination scores than teams with low similarity scores.

$$H_1: E(C3) > E(C4)$$

$$H_0: E(C3) = E(C4)$$

### Statistical Methodology

Hypotheses 1a, 1b, 1c, 2a, 2b, and 2c were investigated for differences between two means.<sup>1</sup>

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<sup>1</sup>Helen M. Walker and Joseph Lev, Statistical Inference (New York: Henry Holt and Company, 1953), p. 153.



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Multiple regression analyses were computed for hypotheses 4a, 5a, 6a, 7a, 8a, 9a, 10a, 11a, 12a, 13a, 14a, 15a, 16a, and 17a. Pearson  $r$ , correlation coefficients were computed for hypotheses 3a, 3b, 3c, and for each of the b, c, d, series from four through seventeen.<sup>2</sup>

Post-test scores from the TSCS and RDS were used in all correlations.

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<sup>2</sup>Michigan State Computer Programs for Multiple Regression Analysis and Pearson  $r$  correlations.

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## CHAPTER IV

### ANALYSIS OF THE DATA

Each of the three phases of the investigation was discussed separately. Phase I attempted to develop base-line data according to the numbers of paraprofessionals and professionals hired as a result of a Middle Cities project, and the duties aides were expected to perform. Phase II consisted of a series of interviews to determine aide duties, trends, feelings, and problems arising from use of teacher aides. Phase III attempted to quantify specific behaviors of aides and their feelings, and also to test the relevancy of self-concept and dogmatism to the performance of aide duties and sentiments.

#### Phase I--Survey

Data from the forty-three funded proposals which represented thirty-six school districts and forty-eight individual schools were examined. Many changes were made during the course of the projects that were not changed in the proposals. Some districts employed more people than intended, others less. Although the data generated from these proposals did not indicate absolutes, it did indicate actual intentions, and did illustrate the approximate number of personnel employed, ratios between paraprofessional and professional, and the various duties expected of aides.

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Total Personnel

A total number of 1,086.8 people were to be employed in the Middle Cities Projects. Slightly more than 67 per cent were paraprofessionals. Two out of every three people to be employed were non-certified personnel.

Only six of the school districts intended to hire more professionals than paraprofessionals. One of the six was hiring paraprofessionals under a Title III ESEA grant, and was the only district to state that no aides were to be hired under Section 3 of the School Aid Act. One district originally planned to hire aides, although not as many aides as professionals, but did not hire aides during the project. Most districts planned to hire more aides than teachers and twenty-three out of the thirty districts intended to employ paraprofessionals over professionals at a rate of at least two to one.

Table 4.1--Employment ratios of Middle City school districts.

<u>Ratios*</u>	<u>Districts Employing More Paraprofessionals</u>	<u>Districts Employing More Professionals</u>
1 to 1	7	2
2 to 1	15	2
5 to 1	8	2
Totals	30	6

\*Ratios approximated to nearest whole numbers.

All districts were to employ some professionals under the act. Eight planned employment ratios of paraprofessionals over

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professionals at a rate of five to one, two districts at a rate of ten to one, and fifteen districts at a rate of two to one.

### Roles of Professionals

Various ways were found by which professional personnel would reduce adult-pupil ratios in the Middle City schools. Of the 348.3 full-time professional people to be employed under the act, 184 were to be used in regular classrooms. Other uses of professionals would include establishment of special classes, the employment of guidance counselors, academic specialists, administrators and in-service personnel.

Table 4.2.--Intended use of professional personnel.

Role	Personnel	Per Cent*
Regular Classroom Teacher	184	53
Regular Classroom Teachers "Floaters"	50	14
Special Classroom Teachers	5	1
Academic Specialists	69.8	20
Counselors	15.5	4
In-Service	17	5
Administration	7	2
Totals	348.3	99*

\*Rounded to two places.

### Regular Classroom Teachers and "Floaters"

Approximately two-thirds of the professional personnel were to be employed in regular classrooms. Slightly more than



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three out of four professionals were to be assigned as regular classroom teachers. Fifty teachers would "float" or rotate from class to class or team to team in order to provide assistance directly to pupils. One district planned to employ twenty-four teachers to rotate with regular classroom teachers.

Rotating personnel would provide more direct teacher contact with students and would also provide the regular teacher opportunities to engage in planning, small group process, and individualized activities. One district was to employ five teachers who would work only with small groups of children. Nine generalists and seventeen specialists were included in the rotating group of fifty teachers.

#### Special Classroom Teachers

In addition to the 184 regular classrooms that were to be established, three to five additional classrooms were to be created for children with special problems. One teacher was to be employed for each of these rooms. In two cases it was not stated whether teachers were to develop social adjustment classes, or work as guidance counselors among several classes. Two ungraded classrooms and one "crisis" class were to be established.

#### Academic Specialists

The second largest use of professionals was to be closely aligned with regular teaching duties. Included as specialists were 6.5 librarians, sixteen reading teachers, and three learning-center teachers. Physical education, music, and art areas combined to constitute 36.3 or more than one-half of the people

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Table 4.3.-

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employed in this category. The only goal stated for the learning center-laboratories was the individualization of instruction.

Table 4.3.--Academic specialists.

Roles	Personnel	Per Cent
Reading	16	23
Science	2.5	4
Math	3	4
Physical Education	13.7	20
Music	12.6	18
Art	10	14
Library	6.5	9
Home Economics	.5	1
Dramatics	2	3
Learning Laboratories	3	4
Totals	69.8	100

Two schools listed a half-time science-math teacher.

#### Counselors--Affective Domain

Two speech teachers, one teacher of English as a foreign language, and four "non-academic" teachers were included in the group of 15.5 counselors. The main criterion for the inclusion of counselors was provision of services to students in the affective domain rather than the cognitive.

One half-time teacher-counselor would have the specific responsibility of creating a better "self-image" for Negroes.

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The 15.5 people who were to be primarily concerned with the non-cognitive areas represented less than 5 per cent of all the total professionals to be employed.

#### In-Service Personnel

A total of seventeen people were to be employed to work as in-service personnel for the Middle Cities Projects. Four would illustrate materials and methods to teachers, one was to be a language arts in-service specialist, six teacher-counselors for in-service purposes were to be hired, and one person was to be a teacher evaluator. The remaining five were to be hired under the general label "in-service" with no specified duties. All seventeen professionals were to work with fellow teachers, rather than students.

#### Administration

Closely related to in-service personnel were the seven assistant principals to be employed under the project. Described duties varied from straight administrative tasks through in-service, and working directly with children. The administrators represented less than 5 per cent of the total professionals.

#### Paraprofessional Roles

Twice as many paraprofessionals as professionals were to be hired for the Middle Cities Projects--738.5 in all. Six hundred eleven of these paraprofessionals representing slightly over 80 per cent were to be employed in regular classrooms. The remainder of the aides were to work in special classes,

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conduct non-classroom duties, perform in-service functions, and develop school-community relations. Several paraprofessionals were to be employed in roles commonly considered as professional roles, and therefore were considered as "curious" paraprofessionals.

Table 4.4.--Paraprofessional Roles.

Roles	Personnel	Per Cent
Regular Classroom	611	83
Special Classes	19	2
Non-Classroom Duties	12	2
In-Service	34	5
School-Community Relations	45.5	6
"Curious"	17	2
Totals	738.5	100

#### Special Classes

Four of the eighteen aides were to be assigned to classrooms--two to special education rooms, and two to ungraded classrooms. Ten aides were to be assigned to teachers who worked with children from several classes; five aides were assigned to librarians; two to reading teachers, and one each to a math teacher, a physical education teacher, and a learning center instructor.

Three social workers and one nurse were each to be assigned an aide.



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### Non-Classroom Duties

Seven of the paraprofessionals were to be hired to work in lunchrooms and cafeterias, two schools planned to use half-time bookkeepers, and one aide would be a hall supervisor. In three cases, aides would take attendance. This brought the total number of aides to be employed in this area to twelve, or about 1 per cent.

### In-Service

Approximately 5 per cent of the people employed as paraprofessionals were to be used for in-service duties. One project presented a plan that included two trainers, five assistant trainers, and twenty trainees. Two nursery aides would take care of the children of the trainees.

The other six paraprofessionals to be hired as in-service personnel would be assigned both secretarial and training duties.

### School-Community Relations

Home counselors were to serve as liaison persons between the home and the school. Home counselors were to assist students, or the families of students in both school and non-school related problems. Twenty-two and one half full-time paraprofessional positions were listed in the proposals.

Closely related to the home counselors were the six neighborhood agents who were to work with children and neighborhood adults on community problems.

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Two paraprofessionals were to perform the duties of community-school directors, to organize extended day programs, and to involve citizens in the development and participation of the programs.

In the extended day programs that were established by the community school directors, thirteen paraprofessionals taught classes and two worked as homemakers. Other aides taught drama, chorus, art, music appreciation, knitting, embroidering, science, gym, and arts and crafts.

### "Curious" Categories of Paraprofessionals

Seventeen people were to be employed as paraprofessionals performing tasks usually considered to be professional. Four academic consultants, five continuing-substitutes, four nurses, two social workers, a speech therapist and a psychologist were to be employed as paraprofessionals. None of the proposals indicated that the people to be employed were to be aides rather than to perform primary roles. The conclusion was drawn that funding affected role definition.

### Paraprofessional Duties

Guidelines for Middle Cities Projects did not say that paraprofessional duties had to be described specifically, and indicated only a broad range of activities expected of aides. Many of the proposals did not list any specific duties; other proposals were explicit.

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## Working with Children

Paraprofessional duties that include working directly with children constituted the widest range of duties for aides. The majority of the paraprofessionals to be employed were to work directly with children.

Instructional.--Many proposals appeared to use different terms to describe the same duties. Whenever a duty was mentioned more than once, the total number of listings is indicated by a numeral in parentheses. "Engages in learning reinforcement activities" (3), and "assists teacher in instructional duties" (8), appear to call for the same types of behaviors from aides. Reading (7), language (3), math (5), science (2), tutors (3), teaching foreign-born children English, making the next assignment available, informing children what they missed (3), and small group instruction (7), were illustrative of the varied tasks aides were expected to perform, the wide range of skills necessary to perform the tasks, and the diversity of language used to describe similar tasks. Further illustrations were "help children use programmed materials, instruct groups in singing and art, explain directions to children, instruct children in health and hygiene practices, assist students in writing, choose library books with children, help children study their lessons, help children find materials, bring materials to children, play games with children, help children act out stories, read to children, explain rules, tell stories, and lead show and tell."

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Social and Emotional.--Duties expected of aides in the area of social and emotional development necessitated a range of skills as broad as that required for instructional duties. Tasks listed were: working with low achievers (2); counseling children, individually and in small groups; serving as a resource person for children; working with children with behavior problems; setting up individual career planning programs; interesting children; settling arguments; listening to children (3); talking with children (2); encouraging children; developing positive self-images in children; helping children socialize; acting as models for children (2); helping with clothing; establishing rapport; rewarding youngsters; finding resources for problem children.

Supervisory.--Under the general description of providing supervision, aides were to escort children (4), supervise lunchrooms (9), supervise recreation (5), correct seat-work (2), monitor study groups, supervise extra-curricular activities, accompany field trips (5), monitor cloakroom and toilets (2), supervise hallways, and supervise "activities" (3). No proposal explained or defined the term supervise.

#### Working with Professionals

In each category aides were expected to perform clerical and routine duties, as well as duties of a more professional nature. Many duties like "classifying books" could be professional or non-professional.

Working with Teachers.--Aides were expected to engage in team work with their teacher-partner (2), assist teacher



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with special groups, attend meetings with teacher, evaluate the day with teacher, give feedback to the teacher about children, plan goals (3), plan trips, operationalize goals, consult with the teacher, evaluate the teacher-aide program, engage in self-assessment activities, interpret behavior, identify behavior techniques, and work on alternate behaviors.

Working with Librarians.--In the library aides were to process, catalog, and classify books. Other aides would help children learn how to use the library, tell stories to children, and work with small groups of children in the library. Two aides were to perform library duties.

Working with (or as) Nurses.--The duties requested of aides in the health area ranged from "performing nursing duties" to "helping children prepare for physical exams" (2). Other duties were developing health education programs (3), providing health services (3), weighing children (3), teaching nutrition and working with parents in the health-nutrition areas (3). In addition the aides were to collect data and to perform various tasks as described by the teachers.

Working with Social Workers.--Duties for aides in the social work field included "escorting children to the social worker" and "providing some therapy." Other social worker aides were to tutor, accumulate data, keep records, and conduct group sessions.

#### Working with Materials

A great deal of overlap existed between the two categories listed below. Many duties listed as office duties

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would be carried out in the classroom and many classroom duties would be performed in the office.

Classroom Duties.--The divergence of skills necessary to "take anecdotal records of children" and "check supplies" illustrated the wide range of duties performed by aides. Other duties were correcting workbooks, correcting papers (13), passing out materials, taking notes at meetings, clerical and routine duties (2), general room organization (3), housekeeping (2), checking equipment, preparing materials (4), preparing bulletin boards (5), operating audio-visual equipment (6), preparing and running dittos, preparing displays (2), providing supplementary texts, writing assignments on the board, ordering films, mounting pictures, preparing charts, record keeping of children (10), collecting money (5), and taking attendance with home follow-up (6).

Office Duties.--Duties within the office areas were no less varied. One aide would "develop a record keeping system," while two aides would merely file. Other duties listed were running stencils (3), general office (2), typing, operating office machines (3), and arranging for the use of materials.

#### Working Among Home, School, and Neighborhood

Many aides were to be hired to serve as home counselors, neighborhood agents, or to provide services that would develop better relationships among the home, school, and neighborhood. The following duties have been separated into four categories: working with parents, children, agencies, and the neighborhood.

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Working with Parents.--Some aides were to be given the

responsibility of training neighborhood adults to become aides. Other duties that dealt directly with parents of students were to work with parents of troublesome children, counsel with parents, inform parents of available help, act as an intermediary between the school and parents, conduct parent conferences, make home visits, develop volunteers, show parents how to prepare more healthful food, and communicate informally with parents.

Working with Children.--Paraprofessional duties included

in this section pertained to "non-classroom" related duties. Included were checking attendance and follow-up (2), working with children who have problems, taking sick children home, escorting children, supervising the safety patrol and instilling responsibility in children.

Working with Agencies.--Two proposals mentioned that

aides would make home and agency calls, one specified making referrals to agencies, and one mentioned surveying agencies to find how to make referrals.

Working in the Neighborhood.--The role of the school in

relation to the community appeared to be one of increasing importance. Aides were expected to chair neighborhood groups to teach parents the function of the school, organize parent groups, work with the community school director, "tie in with the community," serve as liaison between the community and the school (5), develop better relations between school and neighborhood (1), assist families new to the neighborhood, bring the community together, show parents how to plan and prepare

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meals (2), discuss with parents the role of parents, instruct in home management, discuss the care of children, and teach the practical skills of life.

### Phase II--Interviews

Interviews were conducted with superintendents (4), principals (7), coordinator-trainers (3), teachers (18), and aides (17). The purpose of these forty-nine interviews was to determine the types of duties aides were performing, changes in the duties, planned or desired changes in the projects, feelings of aides and teachers, and essential characteristics of teacher-aide relations. The data was analyzed in three ways: (1) a subjective gestalt of all interviews, (2) a horizontal questionnaire item analysis, and (3) a vertical analysis of each interview.

### Subjective Interpretation

The following series of statements represent conclusions and inferences drawn shortly after the completion of all interviews. The statements represent overall interpretations and reactions, which were derived on a subjective-gestalt basis.

1. Paraprofessionals were performing many tasks directly related to the teaching-learning process.
2. In almost every situation, as the projects progressed, aides performed a greater number of tasks related to the teaching-learning process.
3. Pre-service and in-service training for teachers and aides was highly desirable.



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4. Projects that employed coordinators or trainers seem to be more effective than projects that did not.
5. Well defined, clear-cut expectations were important for teachers and aides.
6. Flexibility, cooperation, and respect were necessary attributes in teachers and aides.
7. Free communication between teacher and aide on a two-way basis was essential.
8. Teachers and aides needed an attitude or inclination toward mutual respect, understanding, and acceptance of the other person.
9. A team approach appeared to be more satisfactory than a "boss-worker" situation.
10. The administration primarily represented by the principal set the tone for the project and was almost directly responsible for its success or failure.
11. Discipline of students was a frequent source of friction between teachers and aides.
12. The largest detriment to successful projects was the teacher, who felt threatened by the presence of an aide.
13. Over aggressive aides were detrimental to the project.
14. Finances were of great concern.
15. One effect of a teacher aide program appeared to be increased education, ambition, and general upgrading of the aides.
16. The neighborhood and parents were given more consideration and involvement as a result of teacher aide programs.

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17. The majority of the interviewees did not mention the effects of the program on children.

18. It appeared that the more willing the teacher was to accept the aide as a competent, capable person, the more varied the types of tasks performed by the aide, and the more positive the general classroom atmosphere and the more positive the sentiment of both parties appeared to be.

### Discussion

The overall reaction was to confirm the major thesis that teacher aides were performing a great variety of tasks, including tasks that were directly involved in the teaching-learning process. The more secure a teacher and aide were in their own ability, the greater the variety of tasks that were performed by the aide, and the more operative the team function. Certain specific incidents helped form the conclusions, which were not developed as a series of independent statements, but rather were formed as an overall set of reactions to both positive and negative comments.

### Routine Duties

In a few instances aides were limited to routine type clerical duties, and in all instances except one, the aide felt capable of doing more "teaching." In one instance, the teacher said, "Perhaps she could perform more teaching-type duties, but as long as I am involved in bargaining, I cannot afford to let her perform other than clerical chores." The aide in that situation agreed that her role was to perform

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clerical duties, but she added that she occasionally did work with children individually and in small groups.

### Expectations and Discipline

Clear-cut role expectations afforded teachers and aides the kind of security that was needed at the beginning of the project. The clarity of expectations was more important than the expectations themselves. One trainer said that a handbook was developed solely to provide security for teachers and aides. The handbook stated each team should feel free to change the guidelines at any point.

Some teachers complained because the aide would not discipline children, other teachers objected because the aide did discipline children. Some aides complained because the teacher wanted them to discipline children, while other aides were unhappy because the teachers would not let them discipline children. Teacher-aide understanding, respect, and expectations appeared to be the vital factors in the area of discipline.

### Administration

The attitude of the administrators set the tone for each project. All administrators, superintendents, principals, and trainers stated they favored the idea of teacher aides, but their support ranged from mild to enthusiastic. In projects where the principal was perceived as being very positive to aides, teachers and aides appeared to be more cooperative and compatible than in buildings where the principal support appeared to be moderate. The attitudes of teachers and aides

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toward central administration often reflected the attitude of their building principal. The presence of a coordinator for aides appeared to be of immense value in terms of project skills and abilities. Aides and teachers saw the coordinators as a demonstration of project support by the administration. The coordinators usually provided on-site assistance to both teachers and aides.

### Selection

Where teachers and aides who were involved in forming their own teams, the project was more successful than in situations where aides were assigned to teachers. In two cases aides were assigned to teachers who did not request an aide; both situations were unsuccessful.

### In-Service

One principal who was totally committed to the aide program was totally opposed to pre-service and in-service training during the first year. His point of view was the teacher and the aide should "work things out together," and have in-service training during the second year to deal with specific difficulties and problems suggested by the teachers and aides. Many of the aides and teachers in this particular building disagreed with the principal openly, signifying a high level of trust and respect.

Pre-service and in-service sessions, while definitely advantageous, were not sufficient to insure success of the project. One particular building conducted a good pre-service



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and in-service program, but the situation could not be described as favorable since a high level of mistrust was evident among the school personnel.

#### Threatened Teachers and Aggressive Aides

The teacher who felt threatened typically said, "It's my classroom" or "I think she's spying." Some aides appeared over-aggressive; however, the general impression was that more projects were damaged by teachers who felt threatened at the presence of an aide than by over-aggressive aides.

#### Children and Aides

Children were rarely mentioned in the interviews. The structure of the interview may have led to the sparcity of child-directed comments. The tone of almost all was positive and implied benefits to the children.

Benefits also came to the aides. Many aides expressed the personal satisfaction in their role. A number of aides spoke of their interest in returning to school to become teachers. Several teachers also felt that aides had benefitted substantially.

#### Question-by-Question Horizontal Analysis

Each of the eight interview questions was analyzed separately. Remarks and comments made by interviewees were classified under questionnaire items within categories developed. Remarks were also grouped by superintendents, principals, coordinators, teachers, and aides.

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The purpose for categories was to afford a framework in which a quantification system could be developed, without obliterating the versatility of the comments.

While the importance of the interview as source material is generally agreed upon in the social sciences, there are specific difficulties in evaluating such material. This is due mainly to the fact that interview material is highly diversified and unstructured. At the same time, the richness, flexibility, and spontaneity of this material are the features which constitute its major asset. . . . For these reasons it was decided to attempt some kind of quantification within groups. . . .<sup>1</sup>

Question One--Has the role of the aide changed during the project?

Toward Teaching

The vast majority of respondents agreed that the role of the aide had changed, and that the change involved the aide in performing a wider variety of tasks at the project conclusion than was performed at the beginning of the projects. New tasks included activities such as planning, working with small groups of children, and other tasks more closely identified with the teaching process. One superintendent said that he didn't have enough information to answer the question, nine people said there had not been changes in the role, and thirty-nine people said there definitely had been changes.

Nine people responded there had been very little change. Three of the four teachers and two of the four aides who said there had been little change said that it was because the aide started out teaching and continued to do so. Typical remarks made were: "From beginning to end she acted as a reading

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<sup>1</sup>Adorno, p. 292.

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Two aides who were primarily involved with clerical or routine duties said their roles had not changed. One of them was upset because of this, and said that she preferred working with children. The other aide said her duties were restricted to taking attendance, filling out permission slips, running dittos, doing bulletin boards, preparing A-V materials, taking children to specialists, and doing some work with reading and math groups. One teacher who stated that there had been no change wanted the aide's role limited and said, "The aide should be limited to clerical tasks. Teachers shouldn't have shared their authority with them. Aides should rarely work with children. You see the aide doesn't really want it."

One teacher expressed the view of most respondents when she said, "She started out just with clerical duties, but has constantly moved to teaching duties. If I had known her abilities at first, my kids would be better readers today!" Almost all respondents discussed the types of duties in answer to this question. Duties ranged from the very limited routine tasks to total involvement with the teaching process. Several of the respondents discussed some attitudes, feelings, and perceptions of teachers as well as aides.

#### Emotional Climate

Three out of the four superintendents interviewed remarked about frustrations, attitudes, and feelings. One felt the teacher needed to find limits for the aides or frustration

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would occur. He warned of bad situations where competent aides were held back, and less competent aides were expected to do too much. A different superintendent discussed how the aides pushed to become part of the whole process; how they wanted to assist people; how the feelings of aides and teachers improved; and how all became more responsive to the students.

One coordinator and two principals spoke of the increased confidence of the aides and the increased respect by teachers for the ability of the aides. The coordinator said, "Aides have come much closer to their teachers. They have actually become partners in most of the cases." Speaking of the increased closeness, one principal said, "Occasionally this general trend has caused problems with those teachers who were not involved. The ones who considered the aide as a servant." The other principal felt some teachers were not suited to have aides because "they couldn't stand it when pupils related to another person."

Six teachers and seven aides discussed the emotional climate of the situations. The teachers' remarks centered on willingness to try new things, confidence, and how mutual respect led to more initiative on the parts of the aides. Aides spoke mainly of how much they enjoyed their jobs. Two aides talked about negative attitudes; both aides wanted to do more work with the children. One teacher pointed out that aides "picked up cues from the children" that the teacher missed. Consensus was that aides improved the classroom atmosphere.



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### In-Service Training

Training needs, including pre-service and in-service sessions were mentioned by seven people when answering question one. Remarks made ranged from the need for training to evaluations--good and bad--of existing training programs.

### Communications

Remarks that indicated or related team functions, role expectations, and responses concerning communication between teachers and aides were included in the communication category. Three of seven principals, nine of eighteen teachers, and six of seventeen aides responded in this category. One aide complained that neither she nor her teacher knew what the role of the aide really was. Another aide said she and her teacher very often reversed roles and worked interchangeably. The teachers and the principals agreed that a more effective situation took place when these team functions existed. One teacher said, "My children feel they can go to either of us and get immediate answers."

### Additional Problems

One principal raised the problem of space--in the classroom and out. "The additional fifty aides into this building created problems in the parking lot and the cafeteria. One problem that arose was whether or not the aides could go into the lounge." One superintendent told of difficulties when aides related negative happenings back in the neighborhood. Better selection methods were necessary according to one principal as

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"some aides hired were actually incompetent and unable to read or write." One teacher stressed the need for administrative support and cooperation.

#### Group Comparisons

Each group agreed that teacher aides were performing a wide range of duties closely related to the teaching-learning process. All groups agree that aides were being involved, and some individuals felt the only limits on a paraprofessional's duties should be the aide's ability.

Superintendents, teachers, and aides were more concerned with the emotional climate of the classroom than the principals or the coordinators, in this particular instance. Consensus indicated that the climate in the classroom was improved when a good working relationship was attained. Negative remarks referred to aide frustration. The teachers were the group most concerned with communications, teamwork, and mutual understanding. Nine out of the eighteen teachers discussed communications.

#### Question Two--What Changes Are Planned in Next Year's Program?

Each respondent was asked to identify planned, proposed, or desired changes in the program. In the analysis, no attempt was made to distinguish between planned, proposed, or desired changes.

Table 4.5.--H

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Table 4.6.--

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Table 4.5.--Has the role of the aide changed?

Responses	School Personnel Responding				
	Superin- tendents	Principals	Coord- inators	Teachers	Aides
Yes	3	7	3	14	13
No	0	0	0	4	4
	1	0	0	0	0
Totals	4	7	3	18	17

Table 4.6.--Classification of responses to role changes.

Category	School Personnel Responding					
	Superin- tendents	Principals	Coord- inators	Teachers	Aides	Totals
Teaching duties per- formed by aides	3	7	3	17	15	45
Non-teaching duties only	0	0	0	1	2	3
Emotional climate	3	2	1	6	7	19
Training	1	2	1	3	0	7
Communica- tion	0	3	0	9	6	18
Extraneous problems	1	2	0	1	0	4

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## Training

Major changes planned in future programs centered around training--pre-service and in-service. Most training programs were intended for teachers and aides, although two principals, one teacher, and one aide felt training programs should be only for the aides. The principal who said, "We found that the teachers needed the training as badly as the aides," expressed the view of most interviewees.

The entire group of aides discussed the need for training. Forty-two individuals in all stressed the need for various types of training. The remarks about training were usually focused on three areas--duties, role expectations, and communications. Formal junior college courses were also requested.

## Duties

Most comments concerned with the role or duties of aides were suggestions for training programs. In-service was to be geared to specific duties and personal improvement. "In-service for the aide should include information on how to use the machines, general teaching techniques, grooming, language, etc." "A formal in-service, primarily for aides who want to do some teaching, would consist of subjects like modern math, reading, and language arts."

Several comments that were not related to training indicated changes in the duties of the aides. Remarks usually identified whether the aide's role was to be more clerical or pupil-oriented in nature. Clerical type remarks from teachers were: "Fewer aides, more clerical workers. If I had a full-time



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aide, I would have her do busy work;" ". . . teachers would be in teams, but aides would still do clerical work;" and "we would reduce the number of aides in the upper grades, but keep the same number in the lower grades. Upper grade aides would work with two or three teachers."

At least one aide remarked that restricted paraprofessional roles were a result of teachers that felt threatened by the presence of an aide. "Some of the teachers are too threatened." Attitudes and remarks indicating plans to delegate more responsibility and teaching duties outnumbered comments reflecting plans to restrict the aides. "Next year my aide will have more responsibility." One principal predicted, "Next year aides will have more freedom and responsibility. They'll work more with children--especially in reading."

#### Communications

Improved communications between teachers and aides were requested by thirty-one individuals. Remarks included in the communications category referred to better understanding, inter-personal relationships, and group discussions. Every respondent who spoke of the need for better communications expressed a desire for a formalized training program. No one said that better understanding would occur naturally.

Attitudes generally indicated that communications workshops should be conducted for both teachers and aides. The attitude of the aides was conveyed by one paraprofessional who said, "We need a workshop with the teachers to learn how to deal with each other." Teachers spoke of a series of meetings

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"where we can hash things out." Trainers spoke of group dynamics and role playing; and two superintendents planned to bring in consultants to lead role playing situations. One teacher preferred teacher-only meetings to discuss the interpersonal problems. Several individuals wanted some separate workshop sessions for specific functions.

### Expectations

Closely related to the need for improved communications was the area designated as expectations. Threatened teachers would feel better if they knew what was expected of aides. One principal said, "We found that teachers needed in-service as much as the aides. They needed to know how to use and develop the proper roles." One trainer planned to devote most of the in-service program to role expectations for both teachers and aides.

We will have an in-service program for teachers where we'll define the role of the aide. The total in-service program will be for both teachers and aides. Even the non-threatened and secure teachers need to learn how to handle aides. Both groups, alone and together, will define the roles. . . .

Uncertainty was expressed by the aide who thought that teachers and aides agreed that aides could do more instruction. "The teachers really weren't sure. We knew the teachers didn't want playground duty." The teachers agreed with the aides on the importance of knowing what was to be expected. "One thing we need is a clearer definition of the teacher and the aide." "Some kind of orientation--half separate, half together is needed to deal with expectations at all levels."

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The above categories were closely related to each other.

Many respondents spoke of changes in duties or roles, but effected through training opportunities. Although some individuals mentioned only one or two categories, most discussed the need for improvement in three or four. One superintendent's comment typified the inclusiveness of most responses:

What we need to do is to focus on the aide in the community and also how to develop team membership. A summer workshop is planned describing how the plan is going to work and describing the appropriate roles for aides. Some kind of pre-service is needed, especially for the teacher. Off-campus courses by Wayne State University will be part of the total in-service. There will be course opportunities for paraprofessionals in a career ladder type of sequence. Other courses will be Afro-American culture and the relationship of the aide to the community.

#### Community Involvement

Seven individuals raised concerns about the neighborhood. Most remarks were directed toward developing better understanding between the school and the community. "Discuss local problems--both neighborhood people and staff." "We need to become more sensitive to target areas." One principal told of difficulties when aides carried too much privileged information about the school into the neighborhood.

#### Group Comparisons

Teachers, aides, and coordinators were more concerned with the need for better personal relations and communications than the groups of principals and superintendents. Except for one instance, training was mentioned most often, with duties and communications next most frequently mentioned.

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Table 4.7.--What changes are planned in the program next year?

Categories	Respondents Indicating Category					Totals
	Superintendents (4) <sup>a</sup>	Principals (7)	Coordinators (3)	Teachers (18)	Aides (17)	
Training	2	7	3	13	17	42
Duties	2	4	2	13	10	31
Communications	2	3	2	14	9	31
Expectations	2	4	1	8	10	25
Community	2	1	2	0	2	7

<sup>a</sup>Numerals in parentheses indicate total number interviewed.

#### Additional Considerations

Money was a consideration raised by one superintendent and three aides. Comments about governmental changes, such as "the state department of education will change," were made by two superintendents and two aides. The need for the teacher to become involved in the hiring was mentioned by one principal and one aide. One advantage in the aide program was that students felt free to confide information to aides that they would not tell the teacher. One aide spoke for many when she said, "I hope the program is increased, because our students need it."

#### Question Three--Do You Think the Role and Number of Aides will Change in the Next Five Years?

There was almost unanimous agreement that the number of teacher aides would increase in the next five years. Only six



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respondents were not sure that the number of aides would increase. One aide and four teachers thought limited amounts of money might reduce the number of aides. One superintendent mentioned the possibility that the Michigan Education Association might restrict the number of aides through the association's struggles to reduce class size.

#### Funding

In addition to the four teachers and aide mentioned above who were concerned with funds, three principals, one coordinator, and an additional aide voiced concern over the availability of adequate funding. Approximately 20 per cent of the interviewees mentioned funding concerns.

#### More Professionalized Roles

It was the general consensus that the aide would become much more involved with teaching activities, direct work with children, and a great deal more teaming. Only one aide thought the role of the aide would remain generally the same.

The role of the aide will grow. They can't really be much more now without a degree. They'll be more like a nurse's aide--a teacher's aide.

All superintendents, principals, and trainers indicated a definite move toward professionalism in the role.

They will become teachers; they will take on part of the teaching duties; they will be like a second teacher in the classroom.

They'll become an extension of the teacher, not just for clerical or routine duties, but they will use their own ideas.

Three teachers and one aide neglected to respond to changes in

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the role. With the exception of one aide mentioned, all respondents said the changes would be toward more professional duties.

#### Increased Training and Career Ladder

The increased professionalization depended on increased training experiences.

There will be a program for the classroom aide in the junior college next fall--human growth and development, library science, A-V instruction. Pre-training is necessary and will be concentrated on understanding children and small group instruction, A-V and office machinery. Nursery school aides will become trained and they will increase.

Most frequently respondents discussed different classes of aides, career ladders, and the possibility of two-year junior college programs toward certification:

They'll have two-year certification by 1970. It's really upward-bound, a career ladder, the top will be the teacher, a paraprofessional below her, and then an aide.

There will be a differentiated classification of aides--clerical, and teaching associates, who will have more status. There must be in-service for both.

One coordinator discussed the possible effects of the increased professionalization of aides on the future roles of teachers:

There will be more and more of them performing more and more responsibilities. The title paraprofessional will help. The teacher will become an administrator, diagnostician. She'll delegate authority and write the prescriptions. There will be two types of aides, clerical and instructional. Instructional aides will reinforce the teacher's work, and work with individuals and small groups. The general fund will have to pick up the cost.

Table 4.8.--

Categories  
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Table 4.8.--How will the roles and number of aides change?

Categories Total Respondents	Respondents Indicating Category				
	Superin- tendents (4)	Principals (7)	Coord- inators (3)	Teachers (18)	Aides (17)
Increased numbers of aides	3	7	3	14	16
Uncertain as to numbers of aides	1	0	0	4	1
Funding concerns	0	3	1	4	2
More profes- sionalized roles	4	7	3	15	15
Increased training and career ladder development	4	4	7	4	6

## Group Comparisons

Table 4.3 indicated the unanimity of agreement as to the increased numbers and the professionalized roles of the aides. No superintendent mentioned concern about future funding problems. All the superintendents, and more than half of the principals discussed increased training, and the career ladder for advancement of aides. Less than half of the teachers and aides mentioned training. Although only one of the trainers brought up the subject of training, here all were concerned and expressed both the need for future training and educational advancement opportunities. People in administrative roles, superintendents, principals, and trainers were more concerned with the need for future training than were teachers or aides.

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Question Four--Please Describe the Attitudes of the Personnel at the Beginning of the Project and Now

Question Five--Have Your Personal Feelings Changed?

These two questions were reported together as they both dealt with the feelings, attitudes, and general perceptions of the personnel. The vast majority of the people interviewed stated that their feelings were very positive. Many respondents said their warm feelings were not unanimous; there were small groups of people who still did resent teacher aides.

Started out skeptical and feel extremely good about it now. There are still mixed feelings. Aides like to help kids.

Growth of Positive Attitudes

A few respondents mentioned that some "hard feelings" still existed between teachers and aides. "Overall, it's good. There are a few isolated people who still cause trouble." Each respondent who mentioned the existence of some negative feelings stressed that the majority of people felt very good about the projects.

Most comments indicated that much of the hostility had left. ". . . but the resentment was displaced because the aides did such a bang-up job." "Now the exact opposite is true. They're really for it."

Causes of Friction

The most frequently mentioned causes of friction were threat, insecurity, and lack of knowledge about the role.

The majority of the difficulty was attributed to teachers, by superintendents, coordinators, aides and the teachers themselves.



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A superintendent said, "Some of the teachers didn't want an aide. They were either over-rating the aide or actually they were too insecure. Can't really push them. Still some against it."

A coordinator said:

Teachers found it hard to work with another adult. Many teachers were strained, negative. A small portion of them that is. Teachers were insecure. The stronger master teacher didn't project these attitudes at all. It was the weak teacher who was fearful. We had to reassure them that nobody was peeking. Aides were exuberant. Tension is released together, we're working together now, and it's really going better.

The most important element or problem mentioned was teacher insecurity or fear of the aide. One teacher expressed the view of many with the following summation.

The aides helped us do a professional job. Some of us were a little skeptical, reserved, couldn't see how we could use them. We were the great God in the classroom and hated to relinquish our power. Now we're all sorry about our original negative attitude and feel much better. A lot of the teachers have negative attitudes about it. One of them doesn't even talk to me. Some feel the aides are beneath them and that they shouldn't associate with them. I think it's insecurity. Some of the kids might be more attracted to the aides than the teacher; some teachers want to be the whole show. Some teachers think this means that the administration is saying that they can't do the classroom work by themselves. Teachers feel it is a secretary. There was a small group of teachers who really don't understand what it's about and they're just not with it.

## Community

Parent and community involvement were commented upon fairly frequently. One principal attributed the increased PTA attendance to the teacher aide program. Aides often were able to communicate to the parents what the school was really doing and to increase good feelings about the school. Aides reporting

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to the community also did create new problems. "Aides carry things home--we need some school-community relations work." One person mentioned how the aide was just gathering up information to be used against the school.

#### Group Comparisons

There were no major differences between the attitudes, feelings, and perceptions of superintendents, principals, teachers, and aides. Almost unanimously people were for teacher aide programs, saw problems, blamed the teachers for most of the difficulties, and said not everybody was satisfied. The group of aides were less critical of teachers' insecurity than any of the other groups.

#### Question Six--What Are the Factors Leading to Successful Use of Aides?

#### Question Seven--What Appear to Be the Major Factors Inhibiting Successful Use of Aides?

Many respondents said that their answers to question seven were the opposites of question six. Others, while less explicit, gave comments that were quite opposite. The combination of the two questions provided a composite of factors deemed important to teacher-aide relationships.

#### Personality Characteristics

Every person interviewed, except one aide, discussed personality characteristics that either improved or harmed the effectiveness of aides. There was a general consensus that teachers and aides needed to be warm, sensitive, sincere individuals who were able to accept and respect the other person

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and the student. "Teacher acceptance--if they don't accept, nothing can save it." "Respect as an adult." "Acceptance." "Pride, self-respect, dignity, sensitivity, commitment to best performance." Many remarks were directed to teachers: "The teacher needs to be well-organized," "threatened teachers hurt," and the "teachers need to be mature and accept the aides." Some comments referred directly to the aides, but most referred to aides and teachers. "The aide must like children. She must have certain abilities, a certain amount of aggressiveness and initiative. She can't be blah. The teacher needs to be organized. Teacher should have strong ideas. Both need training."

### Training

Most people emphasized that personality characteristics were more important than training. Ten teachers, three principals, two superintendents, two aides, and no coordinators so stated. The coordinators' answers stressed personality characteristics, human relations. In-service was an integral part of their position.

"Inadequate pre-planning;" "The programs must be planned first;" "Teachers and aides weren't prepared;" and "Aides should be trained to handle classroom control" were frequently received comments. Some remarks referred to techniques, skills, and methods of working with children, but greater understanding on the part of teachers and aides and greater work in the area of human relations was stressed.

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## Communications and Role Expectation

The need for communication between the teacher and the aide; the need for understanding both roles and expectations; and the need to accept, respect, and cooperate were cited as the most important ingredients that would lead to successful use of the aides. Much of the difficulty that arose came from the lack of communication and understanding between the two members of the team. "Teacher and principal selected the aides. Really must get the teachers involved." "Better perceptions by teacher and aides of each other's role and functions were necessary." One coordinator developed guidelines just to give people security. The teachers and aides were told that the guidelines should not be followed rigidly, but to let roles develop between the team. The teacher had the responsibility to make the project a success or a failure. The teacher who was able to work well with the aide, to accept her, to let her try new things, and to encourage her fared well. "Mature teacher who is unafraid will utilize the skills of the aide and will be willing to take the risk to let the aide teach reading or math." When teachers were not able to do this, projects were not very successful. The teacher's ability to work with another adult was frequently mentioned as a factor needing improvement.

## Group Comparisons

The aides were the only group who did not stress training as being particularly important. Training was related more to personality characteristics or human relations than to technical skills. The importance of a positive personality, warm, accepting,



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and understanding was agreed upon by all groups. Teachers and aides were more concerned with personality clashes than the other groups.

The teacher was seen as having the responsibility for the success of the relationship by all groups. The teacher was the manager of the situation and her skill in working with an aide was vital. Two principals and two superior students were the only ones to mention community as being particularly significant.

#### Personality Match and Selection Process

Personality clashes often led to trouble. "Their personalities must match." Difficulty was avoided if the teacher was involved in the selection of the aide. "Really must get the teacher involved."

Aides should be interviewed by the teacher. This would avoid personality conflicts--like if she's a loud mouth, busybody, not accomplishing anything. Compatability is important.

#### Community

The problem of aides relating back to the community was cited by one superintendent. Positive effects in the community were reported more frequently than were negative effects. The typical reaction was expressed by: "Hired aides from the neighborhood who wanted to work, who belonged in the area and who needed to work. This was important."

Table 4.9.-

Categories

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Table 4.9.--Important categories in teacher-aide relations.

Categories	Respondents Indicating Category					Totals
	Superin- tendents	Principals	Trainers	Teachers	Aides	
Personality character- istics	4	7	3	18	16	48
Communica- tions and role expecta- tions	2	5	2	12	14	35
Personality matches	1	3	2	9	9	24
Training	2	3	0	10	2	17
Selection process	3	3	0	3	2	11
Community	2	2	0	0	0	4

### Self-Concept and Dogmatism

All respondents thought self-concept to be a desirable attribute in teachers and aides. "We talked about self-concept a great deal. Part of the crux of the whole program. Without it the students are nowhere." "The self-concept of the pupil is the whole focus; therefore, the aide or the teacher must have good ones." "Self-concept in the teacher is much more important than in the aide. Both people must be open."

Dogmatism was seen as a negative attitude although one principal and one aide stressed the need "not to be wishy-washy." "If either the teacher or the aide is narrow, they have no business being here." "Dogmatism can be detrimental."

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Self-concept and dogmatism appeared closely related. One aide indicated this relationship.

Self-concept is extremely important, a person must be strong enough to be able to go talk to the person and iron out their problems. People should be open, but frankly I wasn't open enough. Need to be able to express and to see things that the teacher doesn't. Self-concept in both is extremely important. One aide lost all confidence in herself and her ability and quit.

#### Vertical Analysis of Interviews

The horizontal analysis described above omitted some problems raised during the interviews and did not bring out the significance of others. All interviews were re-examined to determine whether or not the interviewee mentioned a specific area. Table 4.10 shows the areas for which each interview was examined. It also shows the number of responses by each group of interviewees.

#### Administrative Support

The categories were listed in the order of frequency of response. Numerical frequency was an indicator of importance, but should not be taken as an absolute. The least frequently mentioned category is administrative support, mentioned only nine times, but almost always mentioned in a negative context. Had a lack of administrative support been demonstrated by many principals, the category would have been mentioned more frequently.

#### Duties

All people interviewed said that the teacher aides had become, and would continue to become, more like teachers as time

Table 4.10.

Categories

Duties

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Table 4.10.--Categories mentioned in interviews.

Categories	Respondents Indicating Category					Totals
	Superin- tendents	Principals	Coord- inators	Teachers	Aides	
Duties	4	7	3	18	17	49
Training	4	7	3	17	17	48
Threatened teachers	4	5	3	12	12	36
Role expecta- tions	3	3	3	11	12	32
Respect and acceptance	2	5	3	9	12	31
Team functions	3	6	2	11	8	30
Personality character- istics	3	4	0	11	9	27
Communica- tion	0	4	3	9	10	26
Career ladders	4	4	2	7	6	23
Neighbor- hood	3	3	0	6	7	19
Discipline	0	3	0	5	8	16
Funding	2	2	1	6	5	16
Over aggressive aides	0	2	0	3	9	14
Personal satis- faction	0	2	0	1	11	14
Administra- tive support	2	2	0	2	3	9



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went on. One aide and one teacher said that the role of the aide would not become more like a teacher but would remain clerical. Although the aide mentioned routine duties such as attendance, permission slips, dittos, bulletin boards, A-V materials, etc., she did say she would be doing some work with reading and math groups.

### Training and Career Ladder

Training was the next most frequently mentioned category. Remarks stressed the need for in-service, pre-service, and junior college courses for aides. All five groups stated that training had to be provided for the teacher as well as for the aide. The career ladder, personal improvements, and general upgrading for the aides through training, would continue. One teacher stated she was working with her third aide. The first one left because she got a better job, the second one took a practical nursing course in the evenings and became a practical nurse, and the third aide was presently thinking of returning to school.

### Threatened Teachers

The threatened teacher category was mentioned by all of the superintendents, all the coordinators, most of the principals, most of the teachers, and many of the aides. The groups agreed that it was the teacher's responsibility to make the teacher-aide relationship successful, but that her training did not prepare her to do it. Fourteen people, most of whom were aides, mentioned that difficulty came from the over-aggressiveness of aides.

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### Role Expectations

The need for clear expectations of the role of the aide was stressed repeatedly. All the coordinators mentioned it as did a large majority of teachers and aides. Teachers and aides felt the clarity of expectations for aides was more important than the actual expectations themselves. Definite guidelines should be treated as guidelines; and the aide and teacher must be free enough to change the guidelines.

### Team Functions and Communication

In order to be able to make the changes, teachers and the aides should function as a team. Of the thirty people who mentioned team functions, only one, an aide, thought a boss-worker relationship was preferred. A necessary condition of the team function is the need for communication--open, honest, and direct. All the coordinators stressed communications as did nine teachers and ten aides. A lack of communication between the teacher and aide was the major factor leading to difficult situations.

### Personality Characteristics

Mutual respect, acceptance, organizational ability, warmth, maturity, and a sense of humor were also listed as necessary ingredients to a good working relationship. No major differences were made between characteristics for teachers or characteristics for aides.

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Increased awareness and concern for the neighborhood appeared. Although some problems arose where aides talked too freely in the community, or where aides were "gathering up information" to be used against the school later, by and large, the effect of aides on the community was positive. Aides were able to communicate with parents on a personal level where teachers and school principals were not. Aides were able to gain a much better understanding of teachers and to communicate this to their fellow parents. In one school located in a low socioeconomic neighborhood an aide said that she was amazed to find out that the teachers really worked hard. The aide's perception and that of her neighbors was observing "these pretty young girls, well-dressed going into the building looking fresh and coming out the same way."

Discipline

Discipline was mentioned as a problem by eight aides and five teachers. Discipline, however, was felt to be part of a deeper problem related to role expectations and communication. Some teachers complained that their aides would not discipline the children, while other teachers objected because their aides did administer discipline. Some aides complained that the teachers wanted them to discipline children, and other aides were unhappy because teachers didn't want them to discipline children.

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One respondent remarked that originally, teachers thought that the aide program was a waste of money. Presently the concern was whether or not there would be enough money available to hire more aides in the future. The availability of funds was uncertain, but no uncertainty existed as to whether or not the money should be used for aides.

Personal Satisfaction

Eleven aides digressed to speak of their own personal satisfactions. "I've loved every minute of it and would come back to work on a voluntary basis if there is no money available;" "It is such a wonderful experience, learning with the children." The aide program has done a great deal for the aides as well as for the children.

Phase III--Quantification of Aide Performance

The third phase of the investigation had two major foci:

To attempt to quantify specific aide behaviors that were related to the teaching process, and to assess the sentiments of aides.

To test, at an exploratory level, the relationship of self-concept and dogmatism to the performance of teaching tasks by aides.

Aide Performance of Duties

Four areas of aide behavior plus the sentiments of the aides were investigated. In addition to sentiments the areas of



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behavior were "teacher only tasks," "planning activities," "learning reinforcement duties," "home counseling duties," and "self-assessment."

A seventy-nine item Aide Questionnaire<sup>1</sup> was developed to measure the frequency of behaviors performed by the aide. Each item identified a specific act or feeling. Teachers and aide-partners each completed a questionnaire in terms of the aide-partner's performance and attitude. Responses were limited to "Never," "Seldom," "Often," and "Very Often."

### Teacher-Only Tasks

In an earlier study Moon<sup>2</sup> identified four groups of duties that should be performed only by teachers. Moon asked five groups of people to rank a series of items on a five-point scale, with the low numerals representing teacher-only duties. Nationally known experts, college teachers, principals, teachers and aides comprised each group. Thirty-nine items were identified as teacher-only tasks. Differentiation among the items was accomplished by the use of group mean scores for each item. Items in the fourth group had higher mean scores than any other group, but all items in the group were teacher-only tasks.

### Group 1--Mean Scores of 2.0 or Less

Data in Table 4.11 indicate agreement on teacher only tasks between aides and teachers in the project, and respondents

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<sup>1</sup>The full development of the Aide Questionnaire was discussed in Chapter III.

<sup>2</sup>Moon's study was discussed in Chapter III of this investigation.

Table 4.11

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Table 4.11. Teacher-only items--mean scores 2.0 or less.

Item	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
48-Done semester planning of formal curriculum	11	0	1	1	11	2	0	1
53-Introduced a math concept to a class	7	3	1	2	8	4	2	0
71-Constructed tests	10	9	3	0	6	6	2	0
61-Set criteria for a subjective test	10	2	1	0	11	1	2	0
63-Conducted parent conferences at school in regard to discipline	9	2	2	0	12	2	0	0
19-Carried on research in regard to the effectiveness of a program	6	4	2	1	7	5	2	0
9-Conducted parent conferences at school in regard to academic performances	10	0	2	1	10	3	1	0
79-Interpreted research findings	8	2	3	0	10	3	1	0
75-Aided in the evaluation of intern or student teachers	11	0	1	1	11	0	2	1
Total Responses	82	13	16	6	86	26	12	2
Per Cent <sup>b</sup>	.71	.11	.14	.05	.68	.21	.10	.01

<sup>a</sup>N-Never, S-Seldom, O-Often, VO-Very Often

<sup>b</sup>Rounded to two places.

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to Moon's questionnaire. Project aides did not perform teacher only tasks frequently. Items with mean scores of 2.0 or less were sacrosanct to teachers, yet each task was reported by either the teachers or the aides as being performed by a minimum of two aides on an "often-very often" basis. Item 61--"Set Criteria for a Subjective Test" was the only item reported by teachers as performed by only one aide on an "often-very often" basis.

Aides perceived a lower frequency of performance of duties than did the teachers. Item 63--"Conducted Parent Conferences after School in Regard to Discipline"--had no responses in the "often-very often" column of the aides, but two teachers reported that their aides conducted or participated in parent conferences regarding discipline. One teacher added to the questionnaire, "in conjunction with me."

#### Group Two--Mean Scores of 2.0 or Less, Excluding Experts

Aides' activities that related to items included in Table 4.12 were consistent with the opinions of Moon's groups in that the items were teacher-only tasks. The first six items in Table 4.12 reflect a lower frequency of occurrence by the project aides than the last three tasks. The perceptions of teachers and aides were similar. The group of items in Table 4.12 were performed more frequently by project aides than items included in Table 4.11. The "Often-very often" columns received more responses in this set of nine items than items included in Table 4.11. Project teachers and aides agreed with Moon's groups that items with mean scores of 2.0 or less--experts excluded, were primarily teacher-only tasks, but less teacher-only than

Table 4.12

Item
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Table 4.12.--Teacher-only items--mean scores 2.0 or less, excluding experts.

Item	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
30-Done unit planning	10	1	1	1	8	3	2	1
25-Initiated innovations in the structure of the subject matter	6	4	2	1	9	1	3	1
64-Done daily planning for a subject (continuous)	7	3	2	1	7	1	5	1
74-Developed innovations in instructional methodology	6	5	2	0	11	2	0	1
27-Initiated major curriculum change	11	1	1	0	10	2	2	0
78-Chosen instructional materials on a long-term basis	9	3	1	0	8	5	1	0
69-Selected methods of presenting materials and lessons	6	3	3	1	5	4	3	2
35-Chosen appropriate motivational techniques	2	5	5	1	4	5	4	1
7-Constructed grading scales	2	2	8	1	5	1	5	3
Total Responses	59	27	25	6	67	24	25	10
Per Cent <sup>b</sup>	.50	.23	.21	.05	.53	.19	.20	.08

<sup>a</sup>N-Never, S-Seldom, O-Often, VO-Very Often<sup>b</sup>Rounded to two places.



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items receiving mean scores of 2.0 from all of Moon's groups. Most of the items in the second group were performed by nearly half of the aides at least once.

#### Group Three--Mean Scores between 2.0 and 2.5

Forty-seven per cent of the teachers' responses and 45 per cent of the aides' responses indicated that project aides performed tasks in group three more frequently than tasks in groups one or two, but that group three duties were primarily teacher-only. Three items (44, 39, and 12) were performed by almost half of the paraprofessionals on an "often-very often" basis. Item 44 "Set Discipline Expectations" and Item 39 "Enforced Classroom Discipline" actually had a majority of both teacher and aide responses in the "often-very often" columns.

The "never" columns contained a majority of responses in items 6, 45, and 46. Three or four aides were reported as having performed items 6, 45, and 46 on an "Often-very often" basis. More than fifty-five per cent of the responses of teachers and aides in group three were in the "seldom," "often" and "very often" columns. More than half of the aides performed the teacher-only items of group three--some infrequently, some more frequently.

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Table 4.13.--Teacher-only items--mean scores between 2.0 and 2.5.

Items	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
44-Set discipline expectations	2	2	8	1	5	1	5	3
45-Written programmed materials	9	1	2	1	8	2	4	0
6-Grouped pupils after diagnosis has been made	8	2	3	0	10	1	1	2
39-Enforced classroom discipline	0	2	7	4	0	2	7	5
12-Made up daily assignments	6	2	3	2	5	2	5	2
46-Given grades on the basis of a subjective test when the criteria have been set	8	0	4	1	8	2	4	0
Total Responses	33	9	27	9	36	10	26	12
Per Cent <sup>b</sup>	.42	.12	.35	.12	.43	.12	.31	.14

<sup>a</sup> N-Never, S-Seldom, O-Often, VO-Very Often.

<sup>b</sup> Rounded to two places.

**Group Four--Mean Scores between 2.0 and 2.5,  
Except for Experts**

The percentage of responses in the "never" column is lower in group four than in any other group. The combined results of the "never" and "seldom" columns constitute 50 per cent of the teachers' responses and 54 per cent of the aides. Item 70 "Made home visitations to become aware of home needs" was the only item receiving a majority of "never" responses from both teachers and aides.

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Table 4.14.--Teacher-only items--mean scores between 2.0 and 2.5, except for experts.

Items	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
13-Ordered instructional aids	5	3	4	1	6	3	4	1
56-Developed instructional aids	3	6	3	1	5	4	3	2
29-Planned for one day in one subject area	5	4	2	2	6	4	2	2
4-Chosen instructional materials on a day-to-day basis	1	4	6	2	3	6	2	3
55-Established classroom routine	4	4	4	1	4	2	7	1
77-Enforced discipline	0	1	6	6	0	1	7	5
21-Diagnosed minor learning difficulties	1	2	7	3	2	2	8	2
73-Prescribed for correction of minor learning problems	2	7	3	1	5	3	5	1
34-Introduced a reading lesson	7	0	5	1	4	2	7	1
59-Taught an art lesson	5	4	3	1	4	4	4	2
57-Conducted a penmanship class	6	2	5	0	5	7	2	0
52-Counseled with individual pupils	2	0	9	2	2	4	5	3
22-Administered tests to evaluate in a subject area	2	2	8	1	4	2	7	1
42-Evaluated the citizenship of a pupil	2	3	6	2	3	4	5	2
70-Made home visitations to become aware of home needs	10	1	2	0	13	1	0	0
Total Responses	55	43	73	24	66	49	69	26
Per Cent <sup>b</sup>	.28	.22	.37	.12	.31	.23	.33	.12

<sup>a</sup>N-Never, S-Seldom, O-Often, VO-Very Often.<sup>b</sup>Rounded to two places.

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Aides performed group four tasks more often than tasks in any other group. Group four tasks were considered by the project personnel to be less teacher-only in nature than did Moon's groups. Approximately 70 per cent of the aides performed group four tasks at least on a "seldom" basis.

#### Learning Reinforcement Activities

Activities where the paraprofessional worked directly with individuals or groups of students in learning situations were designated as learning reinforcement activities (LRA). Included as LRA activities were activities which ranged from conducting a drill lesson to introducing a new concept. Teachers and aides perceived more than half the aides as performing LRA tasks on an "often-very often" basis. More than 70 per cent of the teachers' responses were in the "seldom-often-very often" columns, while more than 75 per cent of the aides' responses were out of the "never" column.

Item 38 "Conducted a for-fun music class" received the highest amount of "nevers" by the teachers and the second highest from the aides. Items 34 and 53 received seven "never" responses by the teachers. Items 34, 38, and 53 were the only duties receiving more than half of the responses of the teachers in the "never" column. Only two of the twenty activities, Item 53 "Introducing math concepts" and Item 38 "Conducted a for-fun music class" were performed by less than four aides on an "often-very often" frequency, which indicated a high degree of performance by the aides in this category.



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The aides were more restrictive in their responses than the teachers to LRA activities. Aides agreed with teachers that Items 38 and 53 were performed infrequently, but added Item 41 "Short Term Field Trips, " Item 57 "Conducted penmanship classes" and Item 67 "Instructed a P. E. Lesson" as infrequently performed tasks. The cumulative percentage of the aides' responses in the "often-very often" columns was slightly lower than the percentage of the teachers in the "often-very often columns."

Item 24 "Conducted reading groups" received a greater number of "often-very often" responses than Item 34 "Introduced a reading lesson," indicating that teachers usually introduced the lesson and the aides followed through. The teachers' responses supported the "teacher only" aspect of Item 34 more than the responses of aides. Teachers and aides agreed that approximately half of the aides introduced reading lessons on an "often-very often" frequency. The three items pertaining to math (14, 53, and 72) indicated the same general approach--teachers introducing and aides following through. Item 53 "Introduced a math concept to a class" had more responses in the "never-seldom" categories than either of the other two math activities. Aides were reported as "introducing" concepts more frequently in reading than in math.

LRA activities were intended to represent a wide cross-section of duties related to learning reinforcement. Many items were not applicable to particular grade levels. Item 57 "Conducted a Penmanship Class" would hardly be conducted by either the teacher or the aide in kindergarten classes. The total

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37-Ca	spell
38-Co	music
39*P	disc
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responses in the "often-very often" columns of Table 4.15 indicate most aides performed a wide variety of tasks related to learning reinforcement.

Table 4.15.--Learning reinforcement activities.

Items	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
8-Conducted a reading class	3	1	5	4	3	1	4	6
14-Conducted drill on math facts	2	3	5	3	3	3	6	2
16-Conducted opening period of day	2	5	3	3	1	4	7	2
17-Conducted supervised direct study time	0	0	9	4	1	3	7	3
23-Tutored individuals in subject areas	0	0	8	5	2	0	5	7
24-Conducted reading groups	3	1	5	4	3	1	6	4
34*Introduced a reading lesson	7	0	5	1	4	2	7	1
36-Done desk-to-desk helping of students	0	1	4	8	0	0	4	10
37-Carried out a spelling drill	5	2	4	2	3	5	3	3
38-Conducted a for-fun music class	9	3	1	0	7	6	1	0
39*Enforced classroom discipline	0	2	7	4	0	2	7	5
41-Carried out short-term field trips in connection with class instruction	5	4	2	2	6	6	2	0
43-Conducted a spelling class	5	2	5	1	5	4	1	4

Table 4.

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Table 4.15.--Continued

Items	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
52*Counseled with individual pupils	2	0	9	2	2	4	5	3
53*Introduced a math concept to a class	7	3	1	2	8	4	2	0
57*Conducted a penmanship class	6	2	5	0	5	7	2	0
59*Taught an art lesson	5	4	3	1	4	4	4	2
67-Instructed a P.E. lesson	6	3	4	0	6	6	2	0
72-Worked with a group on drill on basic addition facts	6	2	2	3	2	3	8	1
77*Enforced discipline	0	1	5	7	0	1	8	5
Total Responses	73	39	92	56	65	66	91	58
Per Cent <sup>b</sup>	.28	.15	.35	.22	.23	.24	.32	.21

<sup>a</sup>N=Never, S=Seldom, O=Often, VO=Very Often.

<sup>b</sup>Rounded to two places.

\*Identified as teacher-only task.

### Planning Activities

Each planning activity (PA) had previously been identified as teacher-only by Moon. Slightly more than 50 per cent of the responses of teachers and aides were in the "never" column. Approximately one half of the aides performed a variety of these tasks.

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Table 4.16.--Planning activities.

Items	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
4*Chosen instructional materials on a day-to-day basis	2	4	5	2	3	6	2	3
7*Constructed grading scales	7	2	4	0	11	1	1	1
12*Made up daily assignments	6	2	3	2	5	2	5	2
29*Planned for one day in one subject area	5	3	3	2	6	4	2	2
30*Done unit planning	10	1	1	1	8	3	2	1
35*Chosen appropriate motivational techniques	2	5	5	1	4	5	4	1
48*Done semester planning of formal curriculum	11	0	1	1	11	2	0	1
56*Developed instruction aids	3	6	3	1	5	4	3	2
61*Set criteria for a subjective test	10	2	1	0	11	1	2	0
64*Done daily planning for a subject continuous	7	3	2	1	7	1	5	1
69*Selected methods of presenting materials and lessons	6	3	3	1	4	5	3	2
71*Constructed tests	10	0	3	0	6	6	2	0
74*Developed innovations in instructional methodology	6	5	2	0	11	2	0	1
78*Chosen instructional materials on a long-term-basis	9	3	1	0	8	5	1	0
Total Responses	94	39	37	12	100	47	32	17
Per Cent <sup>b</sup>	.52	.21	.20	.07	.51	.24	.16	.09

<sup>a</sup>N-Never, S-Seldom, O-Often, VO-Very Often.

<sup>b</sup>Rounded to two places.

\*Task identified as "teacher-only"



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Certain tasks appeared to be uniformly conceived as being in the province of the teacher only. Item 30 "Has done unit planning," Item 48 "Has done semester planning of formal curriculum," Item 61 "Set criteria for subjective tests," Item 71 "Constructed tests," Item 74 "Developed innovations in instructional methodology," and Item 78 "Chose instructional materials on a long-term basis," were reported by aides and teachers as being infrequently performed. PA done primarily by teachers were the long-term type of planning and the development of tests. Aides were more involved in finding instructional materials and planning daily or short-term assignments.

#### Self-Assessment Activities

One of the unique aspects of the project was the attempt to involve aides in a series of self-assessment activities (SAS). The aides were trained to act as observers and recorders of teacher behavior. The paraprofessionals were also trained to complete the matrix developed by the Cooperative Educational Research Laboratory, Incorporated (CERLI). The objective was to have the teachers and aides work together as a team to enable the teachers to make more accurate interpretations of the teacher behavior. Table 4.17 illustrated the responses to the self-assessment items.

The "never" columns of both teachers and aides responses received less than 40 per cent of the total responses indicating that most aides did perform duties in this area, even if infrequently. The activity with the most responses in the "often-

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Table 4.17.--Self-assessment activities.

Items	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
5-Used other self-assessment techniques to help my teacher	4	5	3	1	4	6	2	2
10-Initiated discussions with my teacher where I thought she should change some of her actions	8	3	2	0	10	4	0	0
18-Discussed children with her and suggested ways she could be more effective	1	3	3	6	1	2	7	4
31-Suggested to my teacher other assessment techniques for her assistance	6	2	5	0	4	7	3	0
40-Been asked by the teacher for suggestions to improve her teaching	5	4	3	1	6	4	4	0
49-Discussed the success or failure of teacher conducted lessons	7	4	2	0	6	6	2	0
50-Discussed results of the teacher's matrix with her	4	6	3	0	5	7	2	0
51-Initiated discussions with my teacher where I thought she should change goals	8	5	0	0	10	4	0	0
54-Filled out the CERLI matrix	3	6	2	2	2	9	2	1
Total Responses	46	38	23	10	48	49	22	7
Per Cent <sup>b</sup>	.39	.32	.20	.08	.38	.39	.18	.06

<sup>a</sup>N-Never, S-Seldom, O-Often, VO-Very Often.

<sup>b</sup>Rounded to two places.

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very often" columns was Item 18 which pertained to discussions about children.

Item 54 "Filled out the CERLI matrix" was a specific objective of the project. The matrix was filled out by the majority of the aides. The "Seldom" columns of Item 54 received the largest number of responses, but four teachers and three aides marked the "often-very often" columns.

Two items concerned with aide initiation of discussion (10 and 51) indicated most aides did not initiate teacher assessment conversations. A few aides did suggest other assessment techniques to the teachers (Item 31). Four aides did not use other techniques (Item 5) according to the teachers and to the aides. The 60 per cent of the responses in the "seldom-often-very often" columns demonstrate that the practice of self-assessment had taken place.

#### Home Counseling Duties

The role of the paraprofessional as a liaison person between the school and home included duties such as making house calls, meeting with parents at school, and discussing family, school, or community problems. Table 4.18 indicates the responses of the teachers and aides to the home counseling activities performed by aides.

The high percentage of responses in the "never" columns of the teachers and the aides indicated that the objective of the aides serving as home counselors was not met. Item 32 "Listened to problems and troubles of the families of our students" and Item 66 "Worked on my own time as home-school

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Table 4.18.--Home counseling activities.

Items	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
32-Listened to problems and troubles of the families of our students	2	6	4	1	2	6	5	1
47-Been able to make some contacts (social agency, health work, etc.) for families	9	3	1	0	10	4	0	0
58-Conducted parent conferences in regard to community problems	12	1	0	0	11	2	1	0
60-Conducted parent conferences in homes in regard to academic progress	10	2	1	0	13	1	0	0
62-Acted as a truant officer	11	2	0	0	12	2	0	0
63*-Conducted parent conferences at school in regard to discipline	9	2	2	0	12	2	0	0
66-Worked on my own time as a home-school liaison person	5	2	3	3	6	3	2	3
70*Made home visitations to become aware of home needs	10	1	2	0	13	1	0	0
76-Conducted parent conferences in homes in regard to discipline	12	1	0	0	13	1	0	0
Total Responses	80	20	13	4	92	22	8	4
Per Cent <sup>b</sup>	.68	.17	.11	.03	.73	.18	.06	.03

<sup>a</sup> N-Never, S-Seldom, O-Often, VO-Very Often.

<sup>b</sup> Rounded to two places.

\*Task identified as "teacher-only"



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liaison person" received more responses in the "often-very often" columns than did the remainder of activities. No activity was seen as being performed by the majority of aides on an "often-very often" basis.

### Sentiments

One intent of the project was to develop a team operation between each teacher and aide partner, and to develop positive feelings among the entire staff. Responses from both teachers and paraprofessionals were predominantly in the "often-very often" columns which implied the project maintained a high, positive degree of warmth and friendliness.

Item 1 "Felt that my teacher was a partner and we operated as a team," Item 11 "Wanted to change teacher partner," and Item 33, "Felt closer to my teacher partner than to the in-service people" were included to determine the degree of rapport between the aides and the teacher partners. Item 33 was included as a high degree of rapport was established between the aides and the in-service people before the aides began to work with their teachers. The development of stronger ties with their teachers than with the in-service people illustrated the successful accomplishment of the development of team feelings and friendly attitudes.

The aides responded in the "often-very often" columns more frequently than the teachers. The combined percentage in the "often-very often" columns for the aides was 97 per cent and for the teachers 87 per cent. Teachers were more hesitant to say their aides felt positive about the project than were the aides.

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Table 4.19.--Sentiments.

Items	Teachers				Aides			
	N <sup>a</sup>	S	O	VO	N	S	O	VO
1-Felt that my teacher was a partner and we operated as a team	0	0	5	8	0	0	5	9
2-Thought that all teachers should have a paraprofessional	1	1	5	6	0	0	2	12
3-Felt that my teacher likes me as a person	0	0	5	8	0	0	3	11
11 <sup>b</sup> Wanted to change teacher-partner next year	0	0	1	12	1	0	1	12
15-Found the in-service program very helpful	1	2	4	6	1	0	5	8
20-Believed that the children gained much because of my working with the class	1	0	6	6	0	0	7	7
26-Thought my teacher encouraged and permitted me to try a wide variety of tasks	1	1	7	4	0	0	5	9
28-Felt I want to be an aide next year	2	1	4	6	0	0	2	12
33-Felt closer to my teacher-partner than to the in-service people	2	1	5	5	1	1	9	3
65-Felt that my teacher respects me as a fellow worker	2	0	3	8	0	0	5	9
68-Really enjoyed my job	1	0	2	10	0	0	1	13
Total Responses	11	6	47	79	3	1	45	105
Per Cent <sup>c</sup>	.08	.04	.33	.55	.02	.01	.29	.68

<sup>a</sup>N-Never, S-Seldom, O-Often, VO-Very Often

<sup>b</sup>Responses reversed in order to be consistent with rest of table, i.e., a "Never" response was scored as "Very Often" and "Often" was scored as "Seldom," etc.

<sup>c</sup>Rounded to two places.

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Both groups agree that aides perceived the development of good team operations and aides maintained high positive attitudes throughout the project.

### Relevance of Self-Concept and Dogmatism

A series of hypotheses was developed to determine the relevance of self-concept and dogmatism to aide sentiments and to aide performance of duties related to the teaching process. Hypotheses 1 and 2, which dealt with changes in self-concept and dogmatism were tested by determining differences between the means. Hypotheses 3a, 3b, 3c, and all other b, c, d hypotheses (4-17) were tested with Pearson r correlations. Multiple regression analyses were conducted on the series of hypotheses from 4 through 17. All hypotheses were tested in the null form, but were written in research form in the analyses below. Hypotheses 4 through 17 were tested in the form:

$$H_0: R = 0.$$

### Hypotheses 1, 2, and 3

Hypotheses 1, 2, and 3 measured changes in and the correlation of self-concept and dogmatism.

Hypotheses 1a, 1b, and 1c

The total group of teachers and aides (H1a), the aides (1b), and the teachers H1c) would indicate positive changes in their self-concept scores during the project.

Positive changes in the total group scores were indicated, but positive changes were not indicated in either sub-group,

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teachers or aides. Hypothesis 1a was retained and hypotheses 1b and 1c were rejected.

The change in the self-concept scores of the group of aides attained a level of statistical significance beyond .20. The group of teachers indicated changes in self-concept scores that achieved statistical significance beyond the .10 level. The combined scores of both groups reached a level of statistical significance beyond .05.

Table 4.20.--Pre and post-test differences--TSCS<sup>a</sup> and RDS<sup>b</sup>.

Type Personnel	TSCS		RDS	
	N	t-value	N	t-value
Teachers	13	1.371 <sup>c</sup>	8	-.957
Aides	13	1.041 <sup>d</sup>	12	-.094
Total personnel	26	1.747 <sup>e</sup>	20	-.733

<sup>a</sup>TSCS--Tennessee Self-Concept Scale

<sup>b</sup>RDS--Rokeach Dogmatism Scale

<sup>c</sup><sub>p</sub> < .05

<sup>d</sup><sub>p</sub> < .05

<sup>e</sup><sub>p</sub> < .05

Hypotheses 2a, 2b, and 2c

The total group of teachers and aides combined (H2a), the group of aides (H2b), and the group of teachers (H2c) would indicate reduction in dogmatic attitudes during the projects.

Hypotheses 2a, 2b, and 2c were rejected as t-values from each were below a significance level of .05. The t-values from H2a, H2b, and H2c each were negative.



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## Hypotheses 3a, 3b, and 3c

The total group of teachers and aides (H3a), the aides (H3b), and the teachers (H3a) would indicate negative correlations between self-concept scores and dogmatism scores.

The correlation between the RDS and TSCS for the group of aides reached a level of significance beyond the .005 level; the null hypothesis was rejected and the alternative hypothesis was not rejected. A level of statistical significance beyond .01 was attained for the null hypothesis H3a, and therefore H3a was rejected and the alternative was not rejected. H3c was rejected due to the low correlation between the RDS scores and the TSCS scores of the teachers.

Table 4.21.--Correlations between TSCS and RDS<sup>a</sup>

Type Personnel	N	Correlation Coefficients
Teachers	9	-.291
Aides	14	-.721 <sup>b</sup>
Total Personnel	23	-.4911 <sup>c</sup>

<sup>a</sup>Post-tests only

<sup>b</sup> $p < .005$

<sup>c</sup> $p < .01$

Hypotheses 4-17

The following series of hypotheses are stated in literary form. For testing, each hypothesis was expressed and tested in null form, as described in Chapter Three ( $R = 0$ ). A multiple regression analysis was performed on each set of hypotheses (a),

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and aide (b), teacher (c), and team (d), measures of self-concept and dogmatism were individually correlated within each set.

### Hypotheses Related to Self-Concept

Hypotheses 4a, 4b, 4c, and 4d

4. A greater frequency of acts related to the teaching process would be demonstrated by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts
  - b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts

A significance level of .078 was attained for H4a, in null form, which was not rejected. The null forms of H4c and H4d also were not rejected. The self-concept scores of the aides correlated with the combined total scores at a level of statistical significance beyond the .05 level; H4b was retained in research or alternate form.

Discussion.--The multiple regression equation is additive, and usually reflects a level of significance greater than any one variable. The lower significance of H4a ( $p < .10$ ) compared to the significance of H4b ( $p < .05$ ) appeared to be a function of the small number of pairs of teachers and aides (13). Although the multiple regression equation (H4a) increased the amount of accountable variation compared with that of the simple correlation

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(H4b) the degrees of freedom of the error term, and the accountable variation term, resulted in affecting lower F values than required for statistical significance. The statistical significance of the multiple correlation was determined from an F value which was computed from a larger denominator than the denominator of the corresponding t value derived for the simple correlation.

Table 4.22.--Correlations between TSCS and total responses.

Test Measures	Combined <sup>ab</sup> Total Responses	Aide Total Responses	Teacher Total Responses
Multiple R	.716 <sup>d</sup>	.336	.714 <sup>d</sup>
Aide TSCS	.520 <sup>c</sup>	.208	.532 <sup>c</sup>
Teacher TSCS	.023	-.085	.094
Team TSCS	.334	.057	.398 <sup>d</sup>

<sup>a</sup>Hypotheses 4a, 4b, 4c, and 4d were tested using the Combined Total Responses.

<sup>b</sup> $N = 13$

<sup>c</sup> $p < .05$

<sup>d</sup> $p < .10$

The teachers reported that aides with more positive self-concepts did conduct more activities listed on the questionnaire than aides with less positive self-concepts. The teachers reported no significant correlation between the aides' performance of duties and the teachers' self-concept scores. The self-concepts of the aides played a larger part in the performance of these duties than did the teachers' self-concept, according to the teachers. No significant correlations were developed between the responses of the aides and the TSCS scores.

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Hypotheses 5a, 5b, 5c, and 5d

5. A greater frequency of acts related to learning reinforcement activities would be performed by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts.
  - b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts

Not rejected because insufficient levels of statistical significance were attained were the null hypotheses H5a, H5c, and H5d. Aides self-concept scores correlated significantly with the learning reinforcement activities (LRA) and led to the rejection of the null form of H5b.

Table 4.23.--Correlations between TSCS and learning reinforcement activities.

Test Measures	Combined LRA <sup>ab</sup> Responses	Aide LRA Responses	Teacher LRA Responses
Aide TSCS	.599 <sup>d</sup>	.260	.695 <sup>c</sup>
Teacher TSCS	.024	-.022	.059
Team TSCS	.364	.130	.450 <sup>d</sup>
Multiple R	.605	.261	.710 <sup>c</sup>

<sup>a</sup>Hypotheses 5a, b, c, and d were tested with Combined LRA Responses.

<sup>b</sup>N = 13 pairs

<sup>c</sup>p < .01

<sup>d</sup>p < .05

<sup>e</sup>p < .10



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Discussion.--Significant correlations between the self-concepts of the aides and the combined LRA scores, and between TSCS scores of aides and LRA scores of teachers were lost when the multiple equations were computed. The low number of pairs appeared to be the cause of the loss of significance as discussed on page 164.

The aides' self-concept scores correlated significantly with both the team LRA responses and with the teacher LRA responses, but not with the aide LRA responses. The self-concept of the aides was reported by the teachers to be more important than the teachers' self-concepts in the performance of LRA duties by aides. The teachers said that aides with more positive self-concepts performed more LRA duties than did aides with lower self-concepts. Aides reported no differences in performance of LRA between aides with high self-concepts, and aides with low self-concepts.

Hypotheses 6a, 6b, 6c, and 6d

6. A greater frequency of acts related to planning activities would be performed by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts
  - b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
  - c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts

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The hypothesis relating self-concept scores of teachers to aide performance of planning tasks (H6c) was the only hypothesis of the set that did not attain statistical significance, although a significance level beyond .10 was attained for H6c. Therefore, the only null hypothesis in the series that was not rejected was H5c. All items included as planning activities were items previously identified as teacher-only duties.

The decision to retain alternate H6a which hypothesized that a greater frequency of acts would be performed by aides in relation to positive self-concepts was based on evidence indicated in the positive correlations in H6b, c, and d. The tested H6a was rejected as a non-zero relationship appeared to be indicated ( $p < .05$ ) between planning activities and aides, teachers, and team self-concepts. The positive correlations in 6b, c, and d indicated that more positive self-concepts were related to greater frequency of performance by aides in planning activities, and that the non-zero relationship in H6a was developed by the positive relationship between self-concept and frequency of performance.

Discussion.--The multiple equation accounted for greater variance than did any individual correlation. The significance level attained in the multiple equation H5a was lower than the significance level reached in H5d. The team TSCS score (H5d) attained a statistical significance greater than .01, while the multiple equation (H5a) attained a level of 0.13. The loss of statistical significance was attributed to the small N. The correlations between the teachers' responses and self-concept scores reflected a loss of significance also.

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Table 4.24.--Correlations between TSCS and planning activities.

Test Measures	Combined PA <sup>ab</sup> Responses	Aide PA Responses	Teacher PA Responses
Multiple R	.824 <sup>d</sup>	.398	.684
Aide TSCS	.574 <sup>d</sup>	.293	.463 <sup>e</sup>
Teacher TSCS	.388 <sup>e</sup>	.144	.355
Team TSCS	.666 <sup>c</sup>	.295	.572 <sup>d</sup>

<sup>a</sup>H6a, b, c, and d were tested with Combined PA Responses

<sup>b</sup>N = 13

<sup>c</sup>p < .01

<sup>d</sup>p < .05

<sup>e</sup>p < .10

The combined PA correlated most significantly with the team self-concept score. A correlation significance greater than .10 was computed between the combined PA and teacher TSCS; a correlation significant greater than .05 between combined PA and aide TSCS; and a correlation significance greater than .01 between combined PA and team TSCS. The correlation between combined PA and team TSCS was higher (.666) than the correlation with aide TSCS (.574) or Teacher TSCS (.388).

Hypotheses 7a, 7b, 7c, 7d

7. A greater frequency of acts related to home counseling duties would be performed by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts

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- b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
- c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts

No null hypotheses in series 7 were rejected.

Table 4.25.--Correlations between TSCS and home counseling activities.

Test Measures	Combined <sup>ab</sup> Home Counseling Responses	Aide Home Counseling Responses	Teacher Home Counseling Responses
Multiple R	.746 <sup>c</sup>	.634	.655
Aide TSCS	-.100	-.157	-.023
Teacher TSCS	-.372	-.470	-.138

<sup>a</sup>H7a, b, c, and d were tested by using Combined HC Responses.

<sup>b</sup>N = 13

<sup>c</sup>p < .10

Discussion.--Aide TSCS, teacher TSCS, and team TSCS each correlated negatively, although insignificantly, with combined HCA, aide HCA, and teacher NCA respectively. The multiple equation (7a) almost attained a level of statistical significance, but it appeared to be in the opposite question.

Hypotheses 8a, 8b, 8c, and 8d

- 8. A greater frequency of acts related to self-assessment activities would be performed by aides who



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- a. indicated more positive self-concepts than aides who indicated less positive self-concepts
- b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
- c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts

No statistical significance was attained. No null hypotheses were rejected.

Table 4.26.--Correlations between TSCS and self-assessment activities.

Test Measures	Combined <sup>ab</sup> Self- Assessment Responses	Aide Self- Assessment Responses	Teacher Self- Assessment Responses
Multiple R	.329	.324	.524
Aide TSCS	.077	-.285	.356
Teacher TSCS	-.031	-.102	.040
Team TSCS	.029	-.244	.250

<sup>a</sup>H8a, b, c, and d were tested by using Combined Self-Assessment Responses.

<sup>b</sup>N = 13

Hypotheses 9a, 9b, 9c, and 9d

- 9. More positive feelings would be demonstrated by aides who
  - a. indicated more positive self-concepts than aides who indicated less positive self-concepts

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- b. worked with teachers who indicated higher self-concepts than aides who worked with teachers with lower self-concepts
- c. worked in teams with higher combined self-concepts than aides who worked in teams with lower self-concepts

No statistical significance was attained; no null hypotheses were rejected.

Table 4.27.--Correlations between TSCS and positive feelings.

Test Measures	Combined PF <sup>ab</sup> Responses	Aide PF Responses	Teacher PF Responses
Multiple R	.717 <sup>d</sup>	.828 <sup>c</sup>	.630
Aide TSCS	.345	.275	.311
Teacher TSCS	-.430 <sup>d</sup>	-.772	-.209
Team TSCS	-.144	-.479 <sup>c</sup>	.021

<sup>a</sup>H9a, b, c, and d were tested by using Combined PF Responses.

<sup>b</sup>  
N = 13

<sup>c</sup><sub>p</sub> < .05

<sup>d</sup><sub>p</sub> < .10

Discussion.--The aides and the teachers indicated negative correlations between the self-concept of the teacher-partner and the positive feelings of the aides; and the teachers and aides reported positive correlations between the self-concepts of the aides and the aides positive feelings. None of the correlations were statistically significant except that of teacher TSCS and aide PF responses ( $p < .01$ ).

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The correlation coefficients of the Team TSCS scores fell between the correlation coefficients of the aide TSCS scores and teacher TSCS scores in hypotheses 9b, 9c, and 9d respectively.

Hypotheses 10a, 10b, 10c, and 10d

10. Closer similarities of perceptions would be found in teams whose
  - a. aides indicated more positive self-concepts than teams whose aides indicated less positive self-concepts
  - b. teachers indicated more positive self-concepts than teams whose teachers indicated less positive self-concepts
  - c. combined self-concepts were higher than teams whose combined self-concepts were lower

No statistical significance was attained; no null hypotheses were rejected.

Table 4.28.--Correlations between TSCS and similarity scores.

Test Measures	Aide TSCS	Teacher TSCS	Interaction TSCS	Multiple r
Total Similarity Scores	-.141	-.288	-.320	.324

Discussion.--The lack of positive, significant correlations in the series of H10 led to the conclusion that the self-concept scores of the teachers, the aides, and their team scores were not important variables in the determination of the development of

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similar responses between a teacher and aide partner. Similarity scores were developed for learning reinforcement, planning, home counseling, self-assessment, and positive feelings, and were correlated with the self-concepts of teachers, aides, and teams. No statistical significance at the .05 level was attained in any of the correlations.

#### Hypotheses Related to Dogmatism

The group of hypotheses involving dogmatism are reported and discussed together.

#### Hypotheses 11-17

11. A greater frequency of acts related to the teaching process would be demonstrated by aides who
  - a. indicated low dogmatism than aides who indicated high dogmatism
  - b. worked with teachers who indicated low dogmatism than aides who worked with teachers who indicated high dogmatism
  - c. worked on teams with low combined dogmatism than aides who worked on teams with high combined dogmatism
12. A greater frequency of acts related to learning reinforcement activities would be performed by aides who
  - a. indicated low dogmatism than aides who indicated high dogmatism
  - b. worked with teachers who indicated low dogmatism than aides who worked with teachers who indicated high dogmatism



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- c. worked on teams with low combined dogmatism than aides who worked on teams with high combined dogmatism
13. A greater frequency of acts related to planning activities would be performed by aides who
- a. indicated low dogmatism than aides who indicated high dogmatism
  - b. worked with teachers who indicated low dogmatism than aides who worked with teachers who indicated high dogmatism
  - c. worked on teams with low combined dogmatism than aides who worked on teams with high combined dogmatism
14. A greater frequency of acts related to home counseling duties would be performed by aides who
- a. indicated low dogmatism than aides who indicated high dogmatism
  - b. worked with teachers who indicated low dogmatism than aides who worked with teachers who indicated high dogmatism
  - c. worked on teams with low combined dogmatism than aides who worked on teams with high combined dogmatism
15. A greater frequency of acts related to self-assessment activities would be performed by aides who
- a. indicated low dogmatism than aides who indicated high dogmatism
  - b. worked with teachers who indicated low dogmatism than aides who worked with teachers who indicated high dogmatism

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- c. worked on teams with low combined dogmatism than aides who worked on teams with high combined dogmatism
- 16. More positive feelings would be demonstrated by aides who
  - a. indicated low dogmatism than aides who indicated high dogmatism
  - b. worked with teachers who indicated low dogmatism than aides who worked with teachers who indicated high dogmatism
  - c. worked on teams with low combined dogmatism than aides who worked on teams with high combined dogmatism
- 17. Closer similarities of perceptions would be found in teams whose
  - a. aides indicated low dogmatism than teams whose aides indicated high dogmatism
  - b. teachers indicated low dogmatism than teams whose teachers indicated high dogmatism
  - c. combined dogmatism was low than teams with high combined dogmatism

Statistical significance was not attained in any of the hypotheses related to dogmatism. The entire group of null hypotheses, from H11 to H17 was not rejected.

Discussion.--The correlations computed with the aides RDS all were negative, except the similarity score which was .005. Learning reinforcement activities correlated with aide RDS at a significance greater than .10, and a significance level greater than .20 was obtained between aide RDS and total scores, positive feelings, home counseling, and planning.

Table 4.4.

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Table 4.29.--Dogmatism correlations.

Test Measures	Total <sup>a</sup> Scores	Posi- tive Feelings	Home Counsel- ing	Self Assess- ment	Plan- ning	Rein- forcement	Simi- larity
Multiple r's	.582	.659	.613	.399	.536	.648	.340
Aides' RDS	-.492 <sup>c</sup>	-.499 <sup>c</sup>	-.356 <sup>c</sup>	-.224	-.353 <sup>c</sup>	-.569 <sup>b</sup>	.005
Teachers' RDS	.362 <sup>c</sup>	.600 <sup>b</sup>	.588 <sup>b</sup>	-.197	.386 <sup>c</sup>	.090	-.206
Teams' RDS	.060	.340 <sup>c</sup>	.403 <sup>c</sup>	-.359 <sup>c</sup>	.165	-.282 <sup>c</sup>	-.251

<sup>a</sup>N = 9

<sup>b</sup>p < .10

<sup>c</sup>p < .20

Positive correlations were obtained between teachers RDS and total scores, positive feelings, home counseling, and planning. Two correlations, HC and PF reached a significance level greater than .10 and two correlations, TS and P, reached significance levels beyond .20.

The correlation coefficient between team RDS and total score was .060; the correlation between Aides RDS and total score was -.492; and between teacher RDS and total score was .362. The team RDS correlation coefficient came between the aide RDS and teacher RDS correlation coefficients with Positive Feelings, Home Counseling, Planning, and Learning Reinforcement. When correlated with self-assessment the team RDS correlation coefficient was stronger than the correlation coefficients of teacher RDS and aide RDS, both of which were negative. In Similarity Scores the team RDS correlation was stronger than

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the aide RDS or teacher RDS. The aide RDS was .005 and the teacher -.206.

Multiple regression analyses were conducted for the aides' responses and for the responses of the teachers. A multiple  $r$  of .885 was computed between the dependent variables related to dogmatism and aide responses to positive feelings. The correlation of .885 was significant at .041. A simple correlation between aide RDS and aide PF responses was -.845 which was significant beyond .01. A positive correlation, significantly beyond .05, was computed between teacher PF responses and teacher RDS.

Teacher responses to Home Counseling generated a multiple  $r$  of .836 which was significant at .089. The simple correlation between teacher HC responses and teacher RDS was .812, significant beyond .01. The direction was positive indicating more dogmatic teachers were the partners whose aides performed more HC tasks. The small number of cases appeared to account for the loss of significance between the multiple  $R$  and the simple  $r$ .

#### Summary and Discussion of Statistical Data and Statistical Significance

The total group of teachers and aides together reported positive changes in self-concepts, and negative correlations between self-concepts and dogmatism.

The self-concepts of the aides were significantly, positively correlated with the total performance, planning activities, and learning reinforcement activities of the aides.



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The only multiple regression equation to achieve statistical significance pertained to planning activities and the self-concepts of the aides, teachers, and teams. The team self-concept and the aide self-concept each correlated significantly with planning activities.

Data from Table 4.30 indicate that in several cases multiple regression equations achieved less significance than simple correlations derived from respective variables within the multiple equation; five hypotheses achieved significance at the .05 levels, nine at the .10 level, and sixteen at the .20 level; of the thirty hypotheses achieving beyond the .20, twelve were in the unpredicted direction; team correlations usually were between the respective aide correlations, and teacher correlations, but not always; and aide correlations were more uniformly in predicted directions of the hypotheses, than were the teacher correlations. The size of the sample may have been a factor in some of the above.

#### Small Sample Study

The major purpose was not to determine statistical significance between self-concept, dogmatism and the performance of duties by paraprofessionals, but to determine whether or not self-concept and dogmatism were related to aide performance closely enough to warrant further, more rigorous study. The use of small sample studies has been supported by Nunnally,<sup>1</sup> Rose,<sup>2</sup>

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<sup>1</sup>Nunnally, "The Place of Statistics in Psychology."

<sup>2</sup>Arnold M. Rose, Theory and Method in the Social Sciences (Minneapolis: University of Minnesota Press, 1954).

Table 4.

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Table 4.30.--Self-concept<sup>a</sup> and dogmatism<sup>b</sup> correlated with categories.

Test Measures	Total Scores	Positive Feelings	Home Counseling	Self-Assessment	Planning	Learning Reinforcement	Similarity
Aide TSCS	.520 <sup>d</sup>	.345 <sup>f</sup>	-.100	.077	.574 <sup>d</sup>	.599 <sup>e</sup>	-.141
Teacher TSCS	.023	-.430 <sup>e</sup>	-.372 <sup>f</sup>	-.031	.388 <sup>e</sup>	.024	-.288 <sup>f</sup>
Team TSCS	.334 <sup>f</sup>	-.144	-.343 <sup>f</sup>	.029	.666 <sup>d</sup>	.364 <sup>f</sup>	-.320 <sup>f</sup>
Multiple r TSCS	.716 <sup>e</sup>	.717 <sup>e</sup>	.757 <sup>e</sup>	.329	.824 <sup>d</sup>	.605	.324
Aide RDS	-.492 <sup>f</sup>	-.499 <sup>f</sup>	-.356 <sup>f</sup>	-.224	-.353 <sup>f</sup>	-.569 <sup>e</sup>	.005
Teacher RDS	.362 <sup>f</sup>	.600 <sup>e</sup>	.588 <sup>e</sup>	-.197	.386 <sup>f</sup>	.090	-.206
Team RDS	.060	.340 <sup>f</sup>	.403 <sup>f</sup>	-.359 <sup>f</sup>	.165	-.282 <sup>f</sup>	-.251
Multiple r RDS	.582	.659	.613	.399	.536	.648	.340

<sup>a</sup>N = 13<sup>b</sup>N = 9<sup>d</sup><sub>p</sub> < .05<sup>e</sup><sub>p</sub> < .10<sup>f</sup><sub>p</sub> < .20

and others who generally state that the purpose of small sample studies is to determine the relevant factors, and to develop more rigorous study.<sup>1</sup> Correlations determined in small sample studies are unstable and the convictions of conclusions are limited.

<sup>1</sup>G. D. McGrath, et al., Educational Research Methods (New York: The Ronald Press, 1963).

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## Statistical Significance

The question of statistical significance, and the level of acceptance is unsettled in the literature. While the .01 and .05 levels are generally used, "There is a newer trend of thinking that advocates reporting significance levels of all results."<sup>1</sup> Kerlinger points out some of the conflicting opinions and offers a list of articles related to the question of statistical significance.<sup>2</sup> Statistical significance is more difficult to attain for studies using small N's than in larger sampled studies. The null hypothesis is almost always rejected if a large enough N is used. Nunnally said, ". . . if the null hypothesis is not rejected, it is usually because the N is too small."<sup>3</sup> Conversely, correlations attained with small samples cannot have achieved significance through the largeness of sample size, and "thus one can be more confident with a small N than a large N."<sup>4</sup> An example of the relative ease of attaining significance with a larger N occurred when the gains in the self-concepts of the teachers did not attain statistical significance, nor did the gain in the self-concepts of the aides, yet the combination of the two groups of scores did measure a statistically significant increase.

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<sup>1</sup>Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1964), p. 154.

<sup>2</sup>Ibid., p. 155.

<sup>3</sup>Nunnally, p. 643.

<sup>4</sup>David Baken, "The Test of Significance in Psychological Research," Psychological Bulletin, 66:6 (December, 1966), 429.

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Several writers have suggested that replication<sup>1</sup> or multiple corroboration<sup>2</sup> are more reliable, valid methods for determining the acceptance or rejection of hypotheses. Baken suggested that more viable methods for determining conclusions be used when he said:

The argument is rather that the test of significance has been carrying too much of the burden of scientific inference. Wise and ingenious investigators can find their way to reasonable conclusions from data because and in spite of their procedures.<sup>3</sup>

#### Loss of Significance in Multiple r's

The additive nature of multiple regression analyses leads to the expectance of accounting for a greater portion of the variance, and the likelihood of greater statistical significance than correlations between respective elements of the multiple equations. In each instance in Table 4.30 the multiple equations did account for more of the variance than any component. The aide TSCS attained a higher significance level when correlated with Total Scores, than did the Multiple TSCS with Total Scores. Other multiples losing significance were related to Positive Feelings, Planning, Learning Reinforcement, and Similarity. Home Counseling was the only area in which a higher significance was achieved--all sub-correlations were in the opposite direction than predicted. The loss of significance

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<sup>1</sup>Murray Sidman, Tactics of Scientific Research (New York: Basic Books, Inc., 1960).

<sup>2</sup>David T. Lykken, "Statistical Significance in Psychological Research," Psychological Bulletin, 70:3 (September, 1968), 151-159.

<sup>3</sup>Baken, p. 423.



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appeared to be a result of the small N. While the amount of accountable variance was increased by the multiple equations, the increase was not sufficient to offset the reduction in degrees of freedom in the error term, which increased the error term, and the increase in degrees of freedom in the accountable term, which decrease the accountable term. The changes in denominators affect small samples more than large samples.

#### Significance Achieved

Planning activities correlated more significantly with self-concept than any other variable. The multiple analysis achieved a level of significance greater than .05 as did the team self-concept; .01 was surpassed by the aide self-concept, and the teachers' self-concept attained better than the .10 level. Every item of the questionnaire that was included in the planning category was previously identified as being a teacher-only task. No other category was exclusively teacher-only duties; no other multiple equation achieved statistical significance.

The self-concept scores of the aides correlated with Learning Reinforcement Activities, and with the Total Scores at significance levels greater than .05. The self-concepts of the teachers and the team scores never achieved a .05 level of significance with any category.

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Hypotheses that did not achieve statistical significance were rejected. The small number of cases, unstable correlations, and the question of statistical significance led to the discussion of hypotheses that developed statistical significance levels greater than .20. The independence among the dependent variables, with the exception of the total scores, afforded information related to multiple corroborations.

The multiple analysis correlating self-concepts and total scores achieved a significance level of .078. The team TSCS reached .20 and the Aides .05. The small N probably affected the significance level, as the additive nature of the multiple should have developed greater significance, not less.

The multiple correlating positive sentiments and TSCS achieved a .10 level, but the teachers TSCS correlated in a negative direction at a level of .10, while the aides TSCS correlated positively at a .20 level. The team TSCS was negative, although not significant. Self-concept may be an important variable in the development of positive feelings, even if the factors may be positive self-concepts on the parts of aides, or negative self-concepts on the parts of the teachers.

#### Reversals

The multiple equation correlating home counseling with self-concept generated a correlation coefficient of .746 ( $p < .10$ ); the  $r$  between HC and team TSCS was  $-.343$  ( $p < .10$ ); the  $r$  between HC and teacher TSCS was  $-.372$  ( $p < .10$ ); and the  $r$  between HC and aide TSCS was  $-.100$ . All three simple

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correlations were in the direction opposite of that anticipated, which indicated that self-concept was negatively correlated with the performance of home counseling duties.

Reversals, which were defined as correlations going in the direction opposite of that predicted, occurred throughout the study. Teachers indicated reversals more frequently than did aides.

There was no category in which all the correlations from self-concept and dogmatism go in the predicted directions. Self-concept correlations from total scores, planning, and learning reinforcement went in the predicted direction and consistent with the three independent variables--teacher, aide, and team self-concepts. Consistency among self-concept categories was found in home counseling and similarities, but in the opposite direction. Consistency among the dogmatism categories was found only in the self-assessment category.

#### Directional Trends

The self-concepts of the aides correlated with the categories in the predicted directions in all but two instances. Four of the five predicted, directional correlations of aide TSCS attained significance levels beyond .20. Neither of the two reversals for aide self-concept achieved statistical significance. The correlations between aides RDS and the dependent variables were in the predicted directions in all categories except one--similarity. Five of the six aide RDS correlations in the predicted directions were significant at the .20 level.

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Table 4.31.--Direction of correlations.

Test Measures	Total Scores	Positive Feelings	Home Counseling	Self-Assessment	Planning	Learning Reinforcement	Similarity
Aide TSCS <sup>a</sup>	P <sup>d</sup>	P <sup>h</sup>	R <sup>e</sup>	P	P <sup>f</sup>	P <sup>f</sup>	R
Teacher TSCS	P	R <sup>g</sup>	R <sup>h</sup>	R	P <sup>g</sup>	P	R <sup>h</sup>
Team TSCS	P <sup>h</sup>	R	R <sup>h</sup>	P	P <sup>f</sup>	P <sup>h</sup>	R <sup>h</sup>
Multiple TSCS <sup>b</sup>	S <sup>g</sup>	S <sup>g</sup>	S <sup>g</sup>	N.S.	S <sup>f</sup>	N.S.	N.S.
Aide RDS <sup>c</sup>	P <sup>h</sup>	P <sup>h</sup>	P <sup>h</sup>	P	P <sup>h</sup>	P <sup>g</sup>	R
Teacher RDS	R <sup>h</sup>	R <sup>g</sup>	R <sup>g</sup>	P	R <sup>h</sup>	R	P
Team RDS	R	R <sup>h</sup>	R <sup>h</sup>	P <sup>h</sup>	R	P <sup>h</sup>	P
Multiple RDS	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	S

<sup>a</sup>TSCS--N = 13

<sup>b</sup>Multiple equations reported in significant or non-significant.

<sup>c</sup>RDS--N = 8

<sup>d</sup>P = predicted direction

<sup>e</sup>R = reversed direction

<sup>f</sup>p < .05

<sup>g</sup>p < .10

<sup>h</sup>p < .20

The teachers TSCS correlations were in the predicted directions in three out of the seven categories. The teacher TSCS correlated with planning in the predicted direction and attained a level of significance greater than .10. Positive feelings, home counseling, self-assessment, and similarity were categories that correlated with teacher TSCS in the opposite



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direction; the self-assessment-teacher TSCS correlation was the only one of the unpredicted directional correlations that failed to attain a significance level of .20. Self-assessment and similarity were the only two categories where teachers RDS correlations were in the predicted directions; neither correlation achieved a .20 level of statistical significance. Teacher RDS--learning reinforcement was the only unpredicted directional correlation that did not achieve at .20 level of significance. Teachers RDS and TSCS correlations were in the opposite direction nine out of fourteen times, seven of the nine reversals attained a .20 level of significance, and one of the five directional correlations achieved the .20 level.

A vertical analysis of Table 4.31 showed that total scores correlated with TSCS and RDS in the predicted direction four times. Three of the P's (predicted directions) achieved a significance level of at least .20; one of the two R's (reversed direction) achieved the .20 level. Positive feelings recorded four R's, three of which attained the .20. The aides developed P's, but the teachers and the team self-concepts were R's. Home counseling was almost entirely in the reverse direction. Only the aides RDS was in the predicted direction ( $p < .20$ ). Self-assessment, although almost totally insignificant had five P's and one R. The RDS of the teachers and the RDS of the team scores were the only two variables which correlated with planning in unpredicted directions. Learning reinforcement reversed only with teacher RDS, and teacher RDS and team RDS were the only two variables correlating with similarity in the

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predicted directions. Aides were generally P's and teachers R's; but P's and R's varied within categories.

#### Self-concept and Dogmatism Team Scores

The Team TSCS and Team RDS scores were computed by multiplying the TSCS scores of the teachers and their respective aide-partners. Thus teams in which both partners had high scores would develop high team scores. Low team scores were obtained when both teacher and aide partner had low scores. The method of multiplying the two scores did not distinguish between teams consisting of a teacher with a high score (on either TSCS or RDS) and an aide with a low score (on the respective test), and teams where the teacher had a low score and the aide scored high.

Table 4.30 shows that correlations developed from team TSCS and the separate categories were between the correlations developed from aide TSCS and the respective categories and correlation between teacher TSCS and the respective categories in five of the seven cases, and using RDS in the same manner, the team RDS were between the teacher RDS and aide RDS five times, also. In three of the four instances where the team score developed a larger correlation than did either the scores of the teachers or the aides, the teachers and aides scores both developed correlations in the same direction--TSCS--planning, TSCS--similarity, and RDS--self-assessment. RDS--similarity was the only set of correlations wherein team scores generated higher correlations than scores of teachers or aides, where a change of sign occurred. The aide RDS--similarity correlation was .005. In some cases team correlations were in

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the same direction as the teachers; and in no case where correlations of teachers and aides were in the same direction, did the team correlation go in an opposite direction.

#### Teacher and Aide Responses

The team scores from the aide questionnaire were derived by adding the responses of the teacher and her partner and dividing by two. The assumption was that use of a mean score for a team would be more accurate than the perceptions of individual members. Correlations were computed between the responses of the teachers on each variable, and responses of the aides on each variable. The category of positive feelings generated the highest correlation between responses of teachers and aides, which was .413, not significant at .05. Aides and teachers did perceive the frequency of performance by the aides differently.

The underlying theory of the total study presupposes that individuals with better self-concepts, and individuals with less dogmatic attitudes perceive more accurately than individuals with lower self-concepts or more dogmatism. The method employed attempted to balance, or "cancel" errors, rather than record actual performances of duties.

#### Summary of Phase I--Survey

Thirty-six school districts were awarded funds for Middle Cities projects. Reviewed were all funded proposals (forty-three), representing forty-eight schools. Of the 1,086.8 people to be employed, two-thirds were to be paraprofessionals. Most

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professionals were used in regular classrooms or libraries. Seven administrators, fifteen and one-half counselors, and seventeen in-service personnel were the only professionals to be employed outside the class.

Six hundred eleven, slightly more than 80 per cent of the aides were to work directly in the classroom. A few were to be assigned non-classroom duties, thirty-five were to work on in-service programs, and forty-five and one-half were to work with neighborhoods. Seventeen people were employed in roles usually considered professional--social workers, speech therapists, teachers, and psychologist.

Paraprofessionals were to work directly with children in instruction roles, provide emotional support, and afford supervision when necessary. Paraprofessionals were to work with professionals such as teachers, librarians, nurses, and social workers. Paraprofessionals were to work with machines, materials, and supplies in classroom and office settings. Paraprofessionals were also to work with children, parents, and other adults in the neighborhoods.

The myriad of duties listed as appropriate tasks for aides ranged from very prescribed, clerical, non-student associated tasks to teaching children and providing counseling services to families.

#### Summary of Phase II--Interviews

Forty-nine interviews were conducted with superintendents (four), principals (seven), coordinator-trainers (three), teachers (eighteen), and aides (seventeen). The purpose of the



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interviews was to determine the types of duties aides were performing, changes in the duties, planned or desired changes in the projects, feelings of aides and teachers, and essential characteristics of teacher-aide relations.

The following series of statements represent conclusions drawn shortly after the completion of the interviews.

1. Paraprofessionals were performing many tasks directly related to the teaching-learning process.

2. In almost every situation, as the projects progressed, aides performed a greater number of tasks related to the teaching-learning process.

3. Pre-service and in-service training for teachers and aides was highly desirable.

4. Projects that employed coordinators or trainers seem to be more effective than projects that did not.

5. Well defined, clear-cut expectations were important for teachers and aides.

6. Flexibility, cooperation, and respect were necessary attributes in teachers and aides.

7. Communication between teacher and aide on a two-way basis was essential.

8. Teachers and aides needed an attitude or inclination toward mutual respect, understanding, and acceptance of the other person.

9. A team approach appeared to be more satisfactory than a "boss-worker" situation.

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10. The principal was largely responsible for the success or failure of the project.

11. Discipline of students was a frequent source of friction between teachers and aides.

12. The largest detriment to successful projects was the teacher who felt threatened by the presence of an aide.

13. Over aggressive aides were detrimental to the project.

14. Finances were a serious concern.

15. The teacher aide program appeared to result in increased education, ambition, and general upgrading of the aides.

16. The neighborhood and parents were given more consideration and involvement as a result of teacher aide programs.

17. The majority of the interviewees did not mention the effects of the program on children.

18. The more willing the teacher was to accept the aide as a competent, capable person, the more varied the types of tasks performed by the aide, and the more positive the general classroom atmosphere and sentiment appeared to be.

A horizontal, questionnaire item analysis was performed on the interviews, and a vertical analysis that examined each interview for specific problems and topics was made. These analyses supported the subjective findings in the areas of in-service, role expectations, increasing numbers of aides, increased duties and development of "career ladders." Nearly all interviewees stressed the need for good communications and

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positive feelings on the part of all participants. The horizontal and vertical analyses showed that finances were considered a problem, but of less concern than was originally predicted.

#### Summary of Phase III--Quantification

Moon identified thirty-nine tasks as teacher-only duties. Project aides did not perform most of the thirty-nine teacher-only tasks frequently. A high number of the thirty-nine tasks were performed by many of the aides, at least on a seldom basis. Moon categorized the thirty-nine tasks into four groups on a teacher-only continuum. The project aides' frequency of performance of the thirty-nine tasks coincided with Moon's continuum.

Learning reinforcement and planning activities, especially those planning activities related to short-term projects were performed by the aides. Some self-assessment activities were conducted, as were some home counseling duties. High positive feelings by aides toward teachers were maintained throughout the project.

#### Retained Hypotheses

Positive changes occurred in the self-concepts of the total group.

Self-concept was negatively correlated with dogmatism for the total group of project personnel.

Self-concept was negatively correlated with dogmatism for the group of aides.

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Aides with more positive self-concepts performed a greater frequency of learning reinforcement activities than aides with lower self-concepts.

A greater frequency of planning activities were performed by aides with high self-concepts, aides with teachers having high self-concepts, and aides or teams with high team self-concept scores, than planning activities performed by the respective personnel with low self-concepts.

The aides self-concepts and the team self-concept scores each attained a significant, positive correlation with planning activities.

#### Discussion of Statistical Data

Small sample studies develop unstable correlations, and have difficulty in generating statistically significant correlations. Table 4.30 reported all correlations between dependent and independent variables.

In several cases the multiple equations achieved less statistical significance than the correlations achieved for sub-variables. The change in degrees of freedom in both the error term and accountable term appeared to cause the loss of significance, even though more variance was accounted for than in any sub-correlation.

Four statistically significant correlations were developed between self-concept and the dependent variables; no statistical significance was found between the dependent variables and the RDS.



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Total scores correlated with the multiple TSCS equation, the aide TSCS, and the team TSCS at a significance level of .20 or greater.

A reversal, which was a negative correlation, occurred between the teacher TSCS and positive feelings ( $p < .10$ ); the aide TSCS correlated with PF positively ( $p < .20$ ); and the multiple TSCS correlated with PF at a level that nearly achieved statistical significance ( $p < .10$ ).

Home counseling correlations were all in the unpredicted direction.

Aides consistently developed correlations in the expected direction.

Teachers reversed the correlation direction nine out of fourteen times.

P's and R's (predicted and reversed directions) varied within categories, and between RDS and TSCS.

Self-concept and dogmatism achieved a negative correlation that was statistically significant, but did not follow a consistent pattern in correlating with the dependent variables.

Aides and teachers perceived aides' performances differently.

Team RDS and team TSCS scores were developed as the product of the scores of the team members and did not identify which member of the team scored high and which member scored low on the respective tests.

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## CHAPTER FIVE

### SUMMARY, CONCLUSIONS, AND IMPLICATIONS

A three-phase study was conducted to determine the specific roles and duties aides were performing, to ascertain changes in the performance of duties by aides, to assess the sentiments of aides and teachers, and to examine the relevancy of self-concept and dogmatism as important variables in the performance of specific duties by aides. A rationale was developed that was based in perceptual psychology and contended that aides would perform increased numbers of teaching acts throughout the projects. As aides performed routine or clerical duties their lower level safety needs would first be met, then higher level needs such as social needs, would become motivators and aides would perform more teaching tasks.

#### Phase I--Summary

All forty-three funded proposals for Middle Cities Projects were reviewed. Thirty-six school districts planned to employ over 1,000 people under Section 3 of the 1968 Michigan School Aid Act. Professionals, primarily classroom teachers, were to constitute one-third of the total group employed. Counselors, in-service trainers, and administrators were the non-classroom people to be employed.

Of the 738.5 aides to be hired 630 were to work in classrooms, regular or special. Thirty-five were to work on in-service programs. Duties in the area of in-service ranged from in-service coordinator through trainers, to aides to

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coordinators. Twenty aides served as trainees. Forty-five paraprofessionals were to work on school-community relations as neighborhood agents, community school coordinators, and home counselors. Nine teachers, one nurse, two social workers, and a psychologist were to be hired as paraprofessionals.

Aides were to perform duties such as hall, lunchroom, and playground supervision; take attendance, collect monies, and grade workbooks; operate audio-visual and office machines; make anecdotal records; and work with children in tasks ranging from buttoning their coats to teaching and planning lessons. Some districts planned to restrict the aides to limited duties while other districts planned to afford them great freedom.

#### Phase I--Conclusions

1. Aides were to be used in a wide variety of roles with a wider variety of duties.

2. State financial assistance definitely affected the number of aides employed.

3. Proposal guidelines affect terminology, i.e., the nurse, social worker, psychologist, and teachers hired as paraprofessionals.

4. Perceptions about the use of aides--roles, duties, and relationships to children--varied from district to district. There was no uniform code for aide behavior.

#### Phase II--Summary

Forty-nine interviews were conducted with superintendents, principals, coordinators, teachers, and aides in seven

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Middle Cities districts. Opinions varied within each group of respondents, but there were no major differences among the groups. The aides were found to be accepted, respected, and liked. Aides performed a wide range of duties, that generally evolved toward the teaching process. Training, communications, expectations, and personality characteristics were the most significant aspects of, and problems found in aide programs.

Other problems mentioned were personality clashes, aides repeating privileged information in his neighborhood, poor administrative support, and funding. Negative comments were generally restricted to the threatened teacher or the over-aggressive aide. Attitudes toward aides were extremely favorable. A side effect of the use of aides was the upgrading, through school or job, of the aides themselves.

#### Phase II--Conclusions

1. Teacher aides performed a wide variety of duties, many of which were directly involved in the teaching-learning process.
2. The duties aides performed generally followed a trend toward teaching functions.
3. In-service and pre-service training was of utmost importance for teachers and aides.
4. Role expectations, communications, teacher acceptance and administrative support were critical areas in projects.
5. The strong positive attitudes of almost everyone interviewed indicated that teachers definitely accepted aides, and that aides enjoyed their jobs.



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6. The number of aides will increase, their duties will become more involved with teaching, and there will be a continuous upgrading of the aides.

7. Duties performed by aides varied from district to district. The trend toward teaching was the same in all districts interviewed, but aides performed duties at varying points on the aide-teacher continuum of tasks.

### Phase III--Summary

Thirteen teams composed of one teacher and one aide employed in a single Middle Cities elementary school constituted the sample used to ascertain whether aides performed a) the thirty-nine tasks identified as teacher-only,<sup>1</sup> b) learning reinforcement activities, c) planning duties, d) self-assessment functions, and e) home counseling tasks. These teams also were used to determine the sentiments of the aides and to examine the relevancy of self-concept and dogmatism toward the performance of the above tasks and sentiments. An aide questionnaire was developed to quantify the behaviors and feelings of the aides. The aide questionnaire, the Tennessee Self-Concept Scale (TSCS) and the Rokeach Dogmatism Scale, Form D (RDS) were administered to the teachers and the aides.

While the majority of teacher-only tasks were performed by some aides, the total frequency followed the indications of Moon's respondents that the thirty-nine items were basically teacher-only. Learning reinforcement and planning activities,

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especially planning activities of a short-range duration were performed frequently by the aides. Home counseling and self-assessment activities were not performed frequently. Almost all of the tasks on the questionnaire were performed by at least one aide on an often, or very often basis. Aide sentiments were highly positive throughout the study.

The small sample size afforded unstable correlations and appeared to cause a reduction of significance in several multiple regression analyses.

The method of developing team RDS and team TSCS scores by multiplying the score of the teacher by the score of the aide-partner did not distinguish which partner scored high and which partner scored low on the respective test. The combined scores on the questionnaire were determined from the mean scores of teachers and aides, which was based on an assumption of canceling out errors rather than determining reality.

The tested, null form of the following hypotheses attained the designated level of statistical significance ( $p < .05$ ).

Positive changes occurred in the self-concepts of the total group.

Self-concept was negatively correlated with dogmatism for the total group of project personnel.

Self-concept was negatively correlated with dogmatism for the group of aides.

Aides with more positive self-concepts performed a greater frequency of learning reinforcement activities than aides with lower self-concepts.

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A greater frequency of planning activities were performed by aides with high self-concepts, aides with teachers having high self-concepts, and aides or teams with high team self-concept scores, than planning activities performed by the respective personnel with low self-concepts.

The aides' self-concepts and the team self-concept scores each attained a significant, positive correlation with planning activities.

The multiple TSCS hypothesis, the aide TSCS, the aide RDS, and the team TSCS each correlated with the total scores at the .20 level or higher.

Positive feelings were related to the multiple TSCS, the aide TSCS, and the aide RDS. Other correlations attaining the .20 level or beyond were the aide RDS and home counseling; the teacher RDS and self-assessment; the teacher TSCS and the aide RDS, each with planning; and the team TSCS, the aide RDS, and the team RDS with learning reinforcement.

Many correlations were in the opposite direction predicted. The self-concepts of the aides and the dogmatism of the aides correlated with the dependent variables more frequently than the self-concepts and dogmatic attitudes of the teachers.

Perceptions of teachers and aides did not correlate significantly.

### Phase III--Conclusions

1. A number of duties identified as teacher-only were performed by a few aides on an occasional basis. Therefore,

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more aides could perform the tasks more frequently and just as successfully.

2. The high positive sentiments of aides toward the project were maintained and indicated success.

3. While aides performed many learning reinforcement and planning activities, home counseling and self-assessment duties need to be stressed in in-service training if aides are to perform effectively in these two areas.

4. The self-concept of the aides affected aide behavior more than the self-concept of their teacher-partners.

5. Self-concept is a variable in the performance of aide duties that is worthy of further research.

6. The significant correlations between self-concept and planning indicated a strong relation between self-concept and teacher-only tasks as all planning items were teacher-only.

#### Summary

The proposals requesting funds for aides implied that aides would successfully perform a wide range of duties. The positive data acquired from interviews supported the success of the aides, and illustrated that an extremely wide range of duties was performed. Many aides were deeply involved in the learning process, and there was a definite trend by aides toward the performance of more teaching duties.

Problems identified included training, communications, administrative support, role expectations, funding, and personality clashes. Rarely was the cause of a difficulty attributed to lack of technical skill on the part of the aide. Most frequently



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the threatened teacher was blamed both for difficulties between teachers and aides, and for limiting the role of the aide to clerical duties. The self-concepts and dogmatic attitudes of the teachers neither supported nor denied the effect of the threatened teacher.

### Conclusions

Five questions were posed in Chapter I as the purposes of the study. The questions are answered below as conclusions, and additional conclusions are added.

1. Aides:

- a) worked as teachers, nurses, home counselors, social workers, psychologists, and bookkeepers
- b) operated office machines and audio-visual equipment
- c) supervised field trips, lunchroom, halls, playgrounds, and classrooms
- d) prepared meals, lessons, and children
- e) taught children

2. To a limited degree paraprofessionals were performing tasks identified as teacher-only. The quantification phase indicated a low frequency of performance of teacher-only tasks by aides, but also illustrated that most teacher-only tasks were being performed by some aides. The interviews indicated that some aides did everything a teacher did, some aides did little that teachers did, and most aides performed some teacher-only duties.



3. A definite trend from clerical routine duties by aides to more difficult, abstract duties was indicated.
4. Teachers, aides, principals, trainers, and superintendents felt aides were doing a fine job in helping teachers and children. Almost without exception the attitudes toward aides were positive.
5. Self-concept was found to be worthy of further, more rigorous study as an important variable in the performance of aides. Not enough evidence was developed to conclude that dogmatism was a relevant variable in the performance of aide duties. The small number of teachers and aides, eight teachers and eight aides, involved with the dogmatism scale made any conclusion extremely tenuous.
6. The attitudes of the personnel involved indicated that teachers will request aides, the number of aides will grow, and that the aides will become even more involved in the teaching process.
7. Training programs, administrative support, role expectation, and communication were the most significant factors in determining the success of the program.
8. Teachers and aides should develop goals and role expectations together.
9. Teachers and aides should have time to plan, evaluate, and communicate together.

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10. The total study supports, but not unequivocally, the theory developed for the study. The study was like the related literature--supportative, but with expectations and reversals.
11. The perceptions of teachers and aides of appropriate aide behavior are far more important than any prescribed definition of appropriate aide behavior. Duties perceived as appropriate for aides, can be successfully accomplished by aides.

#### Implications for Further Study

The conclusions of the study indicated acceptance of aides, increasing numbers of aides, and the performance of many teaching duties by aides. The conclusions support predicted directions and trends, although exceptions, reversals, and unanswered questions existed. Further research is needed to:

1. Measure the effect of aide performance on children's performance and attitudes.
2. Measure the amounts of time aides perform various duties, i.e., measure the total behavior of aides.
3. Test the effects of self-concept on aide performance, total behavior as well as in specific categories.
4. Determine areas, if any, where aide self-concept is more important than teacher self-concept and areas where teacher self-concept is more important.
5. Determine the accuracy of the responses of teachers and aides through observation.

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6. Determine the results of self-concept when a sample large enough to use an analysis of variance is employed, or when several, independent small samples studies are undertaken as replications.

#### Meta-Data

Specific behaviors of paraprofessionals, their feelings, and the possible relationships of these factors with self-concept and dogmatism were examined.

Aides did perform some tasks previously identified as teacher-only, although infrequently.

Aides did perform tasks related to learning reinforcement, planning, self-assessment, and home counseling activities, although not as frequently as anticipated.

Aides did indicate there was some relationship between self-concept and the performance of duties, although relationships between aide performance of duty and dogmatism were not established.

Aides did maintain strong, positive feelings about the project. The perception of what an aide could or should do was the principal determinant of what aides actually did.

The five conclusions illustrated both successes and failures in the project, and none was absolute. A synthesis of the three phases is offered that consists of general, overall, subjective observations and interpretations.

A high degree of camaraderie and rapport was developed and maintained between the professionals and the paraprofessionals. This good rapport appeared to permeate the atmosphere and the



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children showed positive feelings toward school and the adults. There was some indication that parents' perceptions of schools improved, and that the perceptions, or at least awareness of the school toward parents improved.

There were problems, and there will continue to be problems. At this time, no "hard data" exist that show growth in the children--academically, socially, or emotionally and no "hard data" exist that show growth in the staff professionals or paraprofessionals. However, a plethora of subjective data exist that indicated positive growth in children and adults occurred as a result of paraprofessionals. The use of aides was considered beneficial and successful.

The project illustrated that aides performed many tasks heretofore considered teacher-only. The aides began by performing clerical duties, but as they developed confidence, skills, ability, and desire, tasks more directly involved with teaching were undertaken by the paraprofessionals.

While the aides were growing in their ability to perform more teaching tasks, the teachers were also growing. As the aides increased in experience, ability, and performance, the teachers encouraged the aides to do more. This did not undermine the teacher's professionalism; it enhanced it. The teacher not only taught children, but instructed the aide in teaching procedures and methodology.

As teachers became more confident of themselves and less threatened by the presence of the aides, the teachers appeared more willing to let the aide perform duties of a professional

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nature. As aides performed more professional duties, aides felt better, believed themselves to be more competent, and became more competent.

A "benevolent cycle" occurred within most of the aides. As the aide performed more complex, professional duties, the aide felt better about herself and her ability to perform professional duties. The better the aide felt, the more successful was her performance; the more successful the performance, the more difficult were the professional duties attempted; the more professional duties attempted, the better the aide felt about herself and her ability.

Most often as the aides grew and afforded better service to children, the teachers realized that the growth of the aide occurred under the teacher's tutelage; the teachers realized their own ability to teach the aides, and the children; the teachers' feelings of incompetency, suspicion and threat were alleviated. As the negative feelings decreased, positive feelings increased, and the teachers encouraged the aides to do more. The more the aides accomplished, the better the teachers felt.

The aides developed a benevolent cycle. The teachers also developed a benevolent cycle, and the benevolent cycles of teachers and aides interacted and spurred greater growth in both teacher and aide. This process did not occur in every case, nor did it follow the same pattern in all cases. The benevolent cycle closely parallels the underlying theory developed for this study, and therefore supports the concept of man's hierarchy of needs.

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Both aides and teachers usually underwent positive, cyclic growth. As the interaction and positive growth promoted further growth in teachers and aides, the children undoubtedly benefitted from this benevolent cycle. Improvement of the learning situation was the real purpose of paraprofessionals. One example of the positive effect of aides on children, and the increased involvement of children in the learning process occurred when during an interview one aide asked, "Why aren't you interviewing children, too?" No answer! Later that afternoon the teacher-partner related the aide's suggestion and volunteered to mail the children's reactions to the use of aides as soon as they were typed! The responses of the children appear in Appendix D.

#### Tomorrow

Educators have long talked about and searched for innovations, technologies, and tools that would allow schools to become citadels of learning and developers of the full human potential. That is the aim, the goal. The influx of interested, eager, sympathetic, and involved adults--aides, may well be the catalytic agents to bring the desired changes about. The surge of benevolent cyclic growth may well start the process. Growth may become contagious; man may become.



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## APPENDIX A





APPENDIX A

May 25, 1969

Dear Superintendent,

This letter is to introduce Ethan Janove, a Mott Intern and one of my graduate students at MSU. Ethan is working on his dissertation, which is concerned with the roles and duties of teacher aides employed in the Middle Cities Projects.

He would like to interview you, the principal, or other involved administrators, as well as some teachers and aides. Ethan has guaranteed me that no interview would last more than fifteen minutes.

I would appreciate it if you could grant Ethan fifteen minutes of your time, and arrange an entry for him into the appropriate school. We will be grateful for any help you can give him. I am sure he will cause as little inconvenience as possible.

Sincerely yours,

Clyde M. Campbell  
Director, Mott Institute  
for Community Improvement



APPENDIX A

May 25, 1969

Dear Superintendent:

As Dr. Campbell's letter indicated, I would appreciate a discussion with you (guaranteed not over fifteen minutes) concerning your district's involvement with teacher aides employed under Section 3 of the State Aid Act.

I would also like to interview building principals, teachers, aides, and other involved administrative personnel. All interviews will be strictly confidential and anonymity is guaranteed.

Enclosed is a copy of the interview questions. Each person will see the questions before they agree to an interview. The interviewee may deviate from the questions, but I will not bring up any new areas.

I would like to visit your district on \_\_\_\_\_. Please return the permission slip as soon as possible. I apologize for the haste, but I do want to conduct the interviews before the close of the year.

Sincerely yours,

Ethan Janove

Enclosures



APPENDIX A

Ethan Janove  
G-3348 Flushing Rd.  
Apt. 1602  
Flint, Mich. 48504  
AC313-732-2539

Please return in the enclosed envelope as soon as possible.

District;

Suggested date of interviews:

\_\_\_\_ Suggested date is acceptable.

\_\_\_\_ Suggested date is not acceptable.

Alternate dates: (Week of June 9-12 is preferable)

\_\_\_\_\_ A.M. or P.M.

\_\_\_\_\_ A.M. or P.M.

\_\_\_\_\_ A.M. or P.M.

Please report to: (School and address)

Time for arrival:

\_\_\_\_\_ Sorry, but we are unable to grant you the interviews.



## APPENDIX A

### INTERVIEW QUESTIONS

1. Has the role of the aide changed during the project?
2. What changes are planned in the program next year?
3. How do you think the role and numbers of aides will change in the next five or ten years?
4. Please describe the attitudes of the personnel at the beginning of the project and now.
5. Have your personal feelings changed?
6. What appear to be the major factors leading to successful use of aides?
7. What appear to be the major factors inhibiting successful use of aides?





APPENDIX B



## APPENDIX B

Dear Educator:

The following items are to be given to a group of teachers and their aides. Some of the items have been identified by Arden Moon as "teacher only" tasks. One of my intents is to see if the "teacher only" tasks were performed by the group of aides in my study. Also I want to see if the aides performed duties in five categories--Home Counselors, Self-Assessment, Planning, Learning Reinforcement, and Feelings. I need your help in developing items for these categories. Please read each item and indicate which category you believe the item belongs to, if any. If it does not fit any category, please indicate.

Legend:

HC--The Home Counselor is the school-home liaison person. Duties would range from finding out why a child was absent, to providing some non-school related service to a member of the child's family.

SA--Self-assessment activities are limited to those performed by the aide in relation to the teacher's behavior. Included will be tasks such as filling out a CERLI matrix, discussing the matrix, and discussing the success or failure of a particular lesson.

P---Planning activities relate to the development of goals and methods for large units or single-concept lessons.

T---Learning reinforcement duties are those we usually think of as teaching. We will include the presentation of new concepts, review, and remediation in large or small groups. We will eliminate lunch or playground duties.

F---We want to know how the aide feels about her job and her teacher. We also want to know how the teacher thinks the aide feels.

X---No appropriate category or ambiguous item.

Thank you for your help. Have I identified the important and pertinent tasks in each category? Please add any items or comments you feel would help the study.

Sincerely yours,

Ethan Janove



## APPENDIX B

ITEM	RESULTS						
	P	T	HC	SA	F	X	Outcome
1. Done semester planning of formal curriculum.	7						P
2. Introduced a math concept to a class.		7					T
3. Constructed tests.	5					2	P
4. Set criteria for a subjective test.	6	1					P
5. Conducted parent conferences at school in regard to discipline.		1	5			1	HC
6. Carried on research in the school in regard to the effectiveness of a program.	4					3	X
7. Conducted parent conferences at school in regard to academic performances.		4	3				X
8. Interpreted research findings.	3	1				3	X
9. Aided in the evaluation of intern or student teachers.				2		5	X
10. Done unit planning.	7						P
11. Initiated innovations in the structure of the subject matter.	3	4					X
12. Done daily planning for a subject (continuous)	6	1					P
13. Developed innovations in instructional methodology.	5	2					P
14. Initiated major curriculum change.	4	3					X
15. Chosen instructional materials on a long term basis.	7						P
16. Selected methods of presenting materials and lessons.	7						P
17. Chosen appropriate motivational techniques.	6	1					P



ITEM	RESULTS						Outcome
	P	T	HC	SA	F	X	
18. Constructed grading scales.	5	1				1	P
19. Set discipline expectations.	2	4			1		X
20. Written programmed materials.	4	2			1		X
21. Grouped pupils after diagnosis has been made.	2	4			1		X
22. Enforced classroom discipline.		5			2		T
23. Made up daily assignments.	6	1					P
24. Given grades on the basis of a subjective test when the criteria have been set.		4			3		X
25. Ordered instructional aids	3					4	X
26. Developed instructional aids.	6					1	P
27. Planned for one day in one subject area.	7						P
28. Chosen instructional materials on a day to day basis.	6	1					P
29. Established classroom routine.	3	3				1	X
30. Enforced discipline.		5				2	T
31. Diagnosed minor learning difficulties.	2	4		1			X
32. Prescribed for correction of minor learning problems.	3	3		1			X
33. Introduced a reading lesson.		7					T
34. Taught an art lesson.		7					T
35. Conducted a penmanship class.		7					T
36. Counseled with individual pupils.		6	1				T
37. Instructed a physical education lesson.		7					T
38. Evaluated the citizenship of a pupil.	1					6	X





ITEM	RESULTS						
	P	T	HC	SA	F	X	Outcome
39. Made home visitations to become aware of home needs.			7				H
40. Assumed responsibility for planning bulletin boards.	3	1		1		2	X
41. Carried out short-term field trips in connection with class instruction.		6		1			T
42. Participated in group planning in the classroom.	4	1		2			X
43. Worked with a group on drill on basic addition facts.	6			1			T
44. Conducted a reading class.		7					T
45. Conducted a "for-fun" music class.		6		1			T
46. Administered tests to evaluate in a subject area.	1	3		1		2	X
47. Conducted a spelling class.		7					T
48. Tutored individuals in subject areas.		6		1			T
49. Enforced classroom routine.		4				3	X
50. Conducted reading groups.		7					T
51. Supervised directed study time.		5		1		1	T
52. Done desk to desk helping of students.		6		1			T
53. Conducted opening period of the day (sharing, etc.).		5		1		1	T
54. Conducted drill on math facts.		6		1			T
55. Carried on a spelling drill.		6		1			T
56. Acted as a truant officer.		5				2	H
57. Filled out the CERLI matrix.				7			S
58. Discussed results of the teacher's matrix with her.				7			S
59. Developed goals with my teacher-partner	4			3			X



ITEM	RESULTS						
	P	T	HC	SA	F	X	Outcome
60. Discussed the success or failure of teacher conducted lessons				7			S
61. Used other self-assessment techniques to help my teacher.				7			S
62. Suggested to my teacher other assessment techniques for her assistance.				7			S
63. Discussed children with her and suggested ways she could be more effective.			1	6			S
64. Initiated discussions with my teacher when I thought she should change goals.	1			6			S
65. Initiated discussions where I thought she should change some of her actions.				7			S
66. Been asked by the teacher for suggestions to improve her teaching.	2			7			S
67. Been asked by the teacher to explain the children and families in order to help her learn more about them.	1		4	2			X
68. Conducted parent conferences in homes in regard to academic progress.		2	5				H
69. Conducted parent conferences in homes in regard to discipline.		1	6				H
70. Discussed community problems with my teacher-partner.	2		3	2			X
71. Conducted parent conferences in regard to community problems			7				H
72. Listened to problems and troubles of the families of our students.			6	1			H
73. Been able to make some contacts (social agency, health, work, etc.) for families.			7				H
74. Worked on my own time as a home-school liaison person.			7				H



ITEM	RESULTS						Outcome
	P	T	HC	SA	F	X	
75. Really enjoyed my job.					7		F
76. Felt I want to be an aide next year.					7		F
77. Wanted to change teacher-partner next year.					7		F
78. Thought that all teachers should have a paraprofessional.					7		F
79. Felt that my teacher was a partner and we operated as a team.				1	6		F
80. Thought my teacher encouraged and permitted me to try a wide variety of tasks.				1	6		F
81. Believed that the children gained much because of my working in the class.					7		F
82. Felt that my teacher likes me as a person.					7		F
83. Felt that my teacher respects me as a fellow worker.					7		F
84. Found the in-service program very helpful.	1				5	1	F
85. Felt closer to my teacher-partner than to the in-service people.					7		F



APPENDIX C





# APPENDIX C

## AIDE QUESTIONNAIRE

The following questionnaire was designed to find out the types of tasks teachers' aides actually perform, and how often the tasks are performed.

Please respond to each task in terms of whether you as an aide have (or your aide has) performed that task and if so how often. While we are asking for individual responses, the report will be made in terms of the total group. All answers will be strictly confidential. If you wish to discuss any of the items with me, please indicate on your questionnaire.

Thank you for your help. Please be sure to answer every item.

Cate- gory <sup>a</sup>	Item	N	S	O	VO
	I have (my aide has)				
F	1. Felt that my teacher was a partner and we operated as a team.			5 <sup>b</sup> 5 <sup>c</sup>	8 9
F	2. Thought that all teachers should have a paraprofessional.	1	1	5 2	6 12
F	3. Felt that my teacher likes me as a person.			5 3	8 11
P	4. Chosen instructional materials on a day to day basis.	2 3	4 6	5 2	2 3
S	5. Used self-assessment techniques other than the CERLI Matrix to help my teacher.	4 4	5 6	3 2	1 2
X	6. Grouped pupils after diagnosis has been made.	8 10	2 1	2 1	1 2
P	7. Constructed grading scales.	7 11	2 1	4 1	1 1
T	8. Conducted a reading class.	3 3	1 1	5 4	4 6

<sup>a</sup>F--Feelings, P--Planning, S--Self-Assessment, H--Home Counseling, T--Learning Reinforcement, X--Non-categorized item.

<sup>b</sup>Upper numerals indicate teachers' responses.

<sup>c</sup>Lower numerals indicate aide responses.



## Aide Questionnaire, cont'd

Cate- gory	Item	N	S	O	VO
X	9. Conducted parent conferences at school in regard to academic performances.	10 10	3	2 1	1
S	10. Initiated discussions where I thought she should change some of her actions.	8 10	3 4	2	
F	11. Wanted to change teacher-partner next year.	12 12	1 1		1
P	12. Made up daily assignments.	6 5	2 2	3 5	2 2
X	13. Ordered instructional aids.	5 6	3 3	4 4	1 1
T	14. Conducted drill on math facts.	2 3	3 3	5 6	3 2
F	15. Found the in-service program very helpful.	1 1	2	4 5	6 8
T	16. Conducted opening period of the day (sharing, etc.).	2 2	5 4	3 6	3 2
T	17. Supervised directed study time.	1	3	9 7	4 3
S	18. Discussed children with her and suggested ways she could be more effective.	1 1	3 2	3 7	6 4
X	19. Carried on research in the school in regard to the effectiveness of a program.	6 7	4 5	2 2	1
F	20. Believed that the children gained much because of my working in the class.	1		6 7	6 7
X	21. Diagnosed minor learning difficulties.	1 1	2 2	7 9	3 2
X	22. Administered tests to evaluate in a subject area.	2 3	2 2	8 8	1 1
T	23. Tutored individuals in subject areas.	2		8 5	5 7



## Aide Questionnaire, cont'd

Cate- gory	Item	N	S	O	VO
T	24. Conducted reading groups.	3 3	1 1	5 6	4 4
X	25. Initiated innovations in the structure of the subject matter.	5 9	5 1	2 3	1 1
F	26. Thought my teacher encouraged and permitted me to try a wide variety of tasks.	1	1	7 5	4 9
X	27. Initiated major curriculum change.	9 10	2 2	2 2	
F	28. Felt I want to be an aide next year.	2	1	4 2	6 12
P	29. Planned for one day in one subject area.	5 6	3 4	3 2	2 2
P	30. Done unit planning.	10 8	1 3	1 2	1 1
S	31. Suggested to my teacher other assessment techniques for her assistance.	6 4	2 7	5 3	
H	32. Listened to problems and troubles of the families of our students.	2 2	6 6	4 5	1 1
F	33. Felt closer to my teacher-partner than to the in-service people.	2 1	1 1	5 9	5 3
T	34. Introduced a reading lesson.	7 4	2	5 7	1 1
P	35. Chosen appropriate motivational techniques.	2 4	5 5	5 4	1 1
T	36. Done desk to desk helping of students.		1	4 4	8 10
T	37. Carried on a spelling drill.	5 3	2 5	4 3	2 3
T	38. Conducted a "for-fun" music class.	8 7	3 6	1 1	
T	39. Enforced classroom discipline.		2 2	7 7	4 5



## Aide Questionnaire, cont'd

Cate- gory	Item	N	S	O	VO
S	40. Been asked by the teacher for suggestions to improve her teaching.	5 6	4 4	3 4	1
T	41. Carried out short-term field trips in connection with class instruction.	5 6	4 6	2 2	2
X	42. Evaluated the citizenship of a pupil.	2 3	2 4	7 5	2 2
T	43. Conducted a spelling class.	5 5	2 4	5 1	1 4
X	44. Written programmed materials.	9 8	1 2	2 4	1
X	45. Set discipline expectations.	2 5	2 1	8 5	1 3
X	46. Given grades on the basis of a subjective test when the criteria have been set.	7 8	1 2	4 4	1
H	47. Been able to make some contacts (social agency, health, work, etc.) for families	9 10	3 4	1	
P	48. Done semester planning of formal curriculum.	11 11	2	1	1 1
S	49. Discussed the success or failure of teacher conducted lessons.	7 6	4 6	2 2	
S	50. Discussed results of the teacher's matrix with her.	4 5	6 7	3 2	
S	51. Initiated discussions with my teacher when I thought she should change goals.	8 10	5 4		
T	52. Counseled with individual pupils.	2 2	4	9 5	2 3
T	53. Introduced a math concept to a class.	7 8	3 4	1 2	2
S	54. Filled out the CERLI Matrix.	3 2	6 9	2 2	2 1





## Aide Questionnaire, cont'd

Cate- gory	Item	N	S	O	VO
X	55. Established classroom routine.	4 5	4 1	4 7	1 1
P	56. Developed instructional aids.	6 5	3 4	3 3	1 2
T	57. Conducted a penmanship class.	6 5	2 7	5 2	
H	58. Conducted parent conferences in regard to community problems.	12 13	1 1		
T	59. Taught an art lesson.	5 4	4 4	3 4	1 2
H	60. Conducted parent conferences in homes in regard to academic progress.	10 13	2 1	1	
P	61. Set criteria for a subjective test.	10 11	2 1	1 2	
H	62. Acted as a truant officer.	11 12	2 2		
H	63. Conducted parent conferences at school in regard to discipline.	9 12	2 2	2	
P	64. Done daily planning for a subject (continuous).	7 7	3 1	2 5	1 1
F	65. Felt that my teacher respects me as a fellow worker.	2		3 5	8 9
H	66. Worked on my own time as a home-school liaison person.	5 6	2 3	3 2	3 3
T	67. Instructed a physical education lesson.	6 6	3 6	4 2	
F	68. Really enjoy my job.	1		2 1	10 13
P	69. Selected methods of presenting materials and lessons.	6 4	3 5	3 3	1 2
H	70. Made home visitations to become aware of home needs.	10 13	1 1	2	



## Aide Questionnaire, cont'd

Cate- gory	Item	N	S	O	VO
P	71. Constructed tests.	10 6	6	3 2	
T	72. Worked with a group on drill on basic addition facts.	6 2	2 3	2 8	3 1
X	73. Prescribed for correction of minor learning problems.	2 5	7 3	3 5	1 1
P	74. Developed innovations in instructional methodology.	6 11	5 2	2	1
X	75. Aided in the evaluation of intern or student teachers.	11 10	1	1 2	1 1
H	76. Conducted parent conferences in homes in regard to discipline.	12 13	1 1		
T	77. Enforced discipline		1 1	5 8	7 5
P	78. Chosen instructional materials on a long-term basis.	8 8	3 5	1 1	
X	79. Interpreted research findings.	8 10	2 3	3 1	



APPENDIX D



## APPENDIX D

### CHILDREN'S COMMENTS

WHAT DO YOU LIKE ABOUT HAVING A TEACHER AND A TEACHER'S AIDE  
IN THE SAME CLASSROOM?

"The reason why it's good is because when one teacher is in a bad good, you can go to another teacher and ask her your question."

"We can get more work done with two teachers. The kids that don't know how to read that good get more help."

"We have two teachers to help us."

"I like when you have a paper to be checked and one teacher is busy, you can go to the other teacher and get your paper checked."

"I love having two teachers. You get extra help. Extra attention."

"Some kids need more help. And when math comes, we get more help. It is very nice."

"When we do math, we can get more help. When one is absent, the other one is here and can help the substitute."

"You get more help and attention. You get more things done. If one teacher leaves, the other one takes over."

"When the teacher is out, you still have someone to help you. When the teacher is absent and we get a substitute and sometimes she doesn't know what to do, the aide teacher can help her."

"You get more attention with two teachers."

"You can get a lot more attention than usual. You can cover more subjects with two teachers."

"When we have a break, the teacher will have somebody to talk with. The aide will help the teacher checking our math or something else. If the teacher has to go to the office or somewhere else, the teacher aide can take care of our room. She will give us extra help."

"You get more help when you need it. It's good for the kids that need to be in a special group."

"The special help the aide can give the reading group. When there are too many kids at one teacher's desk to get checked, you can go to the other one."





## Children's Comments, cont'd

"When there is a substitute, there is always the aide you can turn to. We can get more things done with our aide, like when the files aren't straight the aide can straighten them. The aide thought up an idea to help us with the Great Lakes. I think aides are wonderful, and our aide is the best in the whole world."

"We get more help. You get more attention. You get your turn sooner than with one teacher."

"You get more attention."

"I like that it helps the other teacher a lot. And I like all the teachers, even the teachers who help our real teachers. They help us students in reading, math, social studies, spelling, and all that."

"They can help us with our work."

"I think that some children would like to have two teachers because they need extra help in their work, and the children who do not have two teachers are not as lucky."

"We like to have two teachers for math. And we like to have an extra teacher for reading."

"You can get more help in math, reading, and other subjects. You can get more attention. You can get in less trouble."

"When we have math we don't have to wait a long time to be checked. And when we have a substitute we don't have to worry about her name."

"I hate subs. It's better with two teachers because when one teacher is not feeling good the other can help the kids while the other teacher can relax."

#### WHAT DO YOU DISLIKE ABOUT HAVING A TEACHER AND A TEACHER'S AIDE IN THE SAME CLASSROOM?

"I don't dislike nothing about it."

"I like everything about it. I have been with student teachers and teachers' aides and I like them."

"Nothing at all."

"When one teacher goes out of the room you can't talk cause there's another teacher in the room."

"When one says something and the other says something else, I don't know what opinion to choose from."



## Children's Comments, cont'd

"If teacher told us to do something and then one of us did not know and went to the other teacher and the teacher told him another thing, this would be confusing."

"Well, with two teachers, you can't talk to them as much as before."

"If the teacher is absent, the other can't teach by herself. She has to get a sub. I don't like to have to get a sub."

"Nothing. I like having two teachers."

"The teachers talk from one end of the room to the other."

"Nothing. Everything is just right."

"Nothing."

"I like everything about it."

NOTE: About half the students said they disliked nothing about the situation and therefore left the question blank.

## HOW DO YOU THINK THE PROGRAM COULD BE MADE BETTER?

"I think it's okay now."

"Continue the way it is."

"Same way. We should have two teachers. Really do."

"It would be good to have two teachers in sixth grade. I don't want one teacher in sixth grade."

"I don't think it could be better. The aide teacher can help the other teacher."

"If we didn't have to have a substitute when the regular teacher is absent, it would be better."

"I don't see why, when the teacher is gone and a substitute has to come, why the aide can't do the work by herself. That would be better, if the aide does it."

"Really, I myself like it the way it is, so I really don't think anything needs to be changed."

"It doesn't need to be, with the teacher and the aide it's okay."

"Still have two teachers and everything could be better."



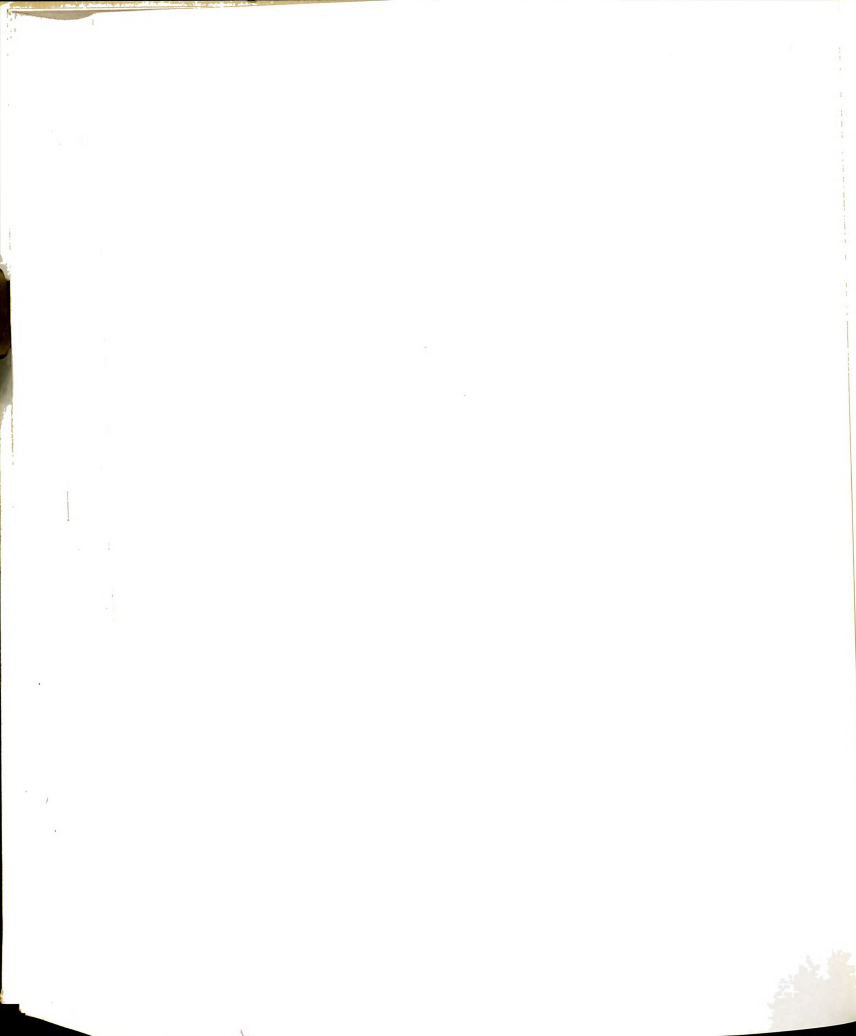
## Children's Comments, cont'd

"I like it just how it is. I hope we continue the teachers' aides. I like all the teacher's aides."

"I wish it would be the same way as this year next year."

NOTE: Again, many students did not respond to this, saying they couldn't think of any ways to improve the situation.











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