Teacher aides, teachers, administrators, and observers in 1 elementary, 1 junior high, and 1 senior high school participated in an evaluation of the effectiveness of the Detroit Pilot Program to Train Teacher Aides in (1) identifying, developing, and defining the role of the aide and (2) identifying effective aide training methods. Procedures included: (1) Teachers rated aides' performances. (2) Activity sheets and questionnaires were used to obtain participants' judgements of the values to the schools and pupils of the aides' work. (3) Daily lesson plans, evaluations of the plans, and observers' reports furnished role definition and training data. (4) Achievement tests and attitude and interest inventories provided data for future selection of aides. Content and statistical analyses of data obtained revealed aides to be effective in the instructional process: 39 of the 40 aides were rated satisfactory by the teachers. Both teachers and aides gained greater understanding of their roles, although aides indicated a desire for more training time in classrooms. It was also found that aides most frequently performed tasks instructional in nature, as well as clerical, monitorial, tutorial, and housekeeping tasks. Eight recommendations for training aides evolved. (Evaluation materials and questionnaires are appended.) (Author/SG)

Detroit Public Schools	SUMMARY OF PROJECT EVALUATION (Community Action Program, Office of Economic Opportunity)	Research and Development May, 1967

Title

Evaluation of the Detroit Pilot Program to Train Teacher Aides

Purpose

To evaluate the project's effectiveness in identifying, developing, and defining the role of the teacher aide, and in identifying effective training methods for teacher aides.

Investigator

Research and Development Department, Edward C. Trzcinski, Project Evaluator

Participants

Teacher aides, teachers, administrators, and observers in one elementary, one junior high, and one senior high school.

Period

June 27-August 5, 1966

Procedures

Teachers rated the performances of teacher aides. Activity sheets and questionnaires were used to obtain participants' judgments about the values to the schools and the pupils of selected activities and the frequencies of their performance by the teacher aides. Daily lesson plans, evaluations of the plans, and observers' reports furnished role definition and training data. Achievement tests, attitude and interest inventories were used to provide data for future selection purposes.

Analyses

Content analyses were made of answers to open-end questionnaire items, of teacher and teacher aide evaluation of daily lesson plans, and of observers' reports of activities. Frequencies of responses to the check-type items on the different instruments used were tabulated and studied. Correlation coefficients were computed to study relationships between perceived values and frequencies of teacher aide activities. Analysis of variance was used to test for statistical significance of differences among teacher aides, teachers, and administrators with respect to values of teacher aide activities.

Findings

Thirty-nine of the forty teacher aides were rated satisfactory by the teachers with whom they worked. Teacher aides were utilized in clerical, monitorial, tutorial, housekeeping, and instructional tasks. As reported by the observers, the activities most frequently performed by the teacher aides were instructional in nature. The teacher aides' perceptions of the values of selected activities to the pupils and school increased after training. While lecture presentations, practicum experiences, and planning sessions were all considered helpful, the teacher aides indicated a desire for more time in the classrooms during training. The teachers gained understanding of the teacher aide role and experience in their own developing roles as coordinators of the instructional process.

Recommendations   Teacher aide selection should continue to be based on area residency, adaptability, specialized skills, ability to interact positively with adults and children, a tenth grade education, and the recommendation of the principal.

Preservice orientation should be provided before teacher aides are assigned to a school.

A policy statement on the role of the teacher aide is necessary to clarify areas of responsibility.

A hierarchy of clerical, monitorial, tutorial, and instructional tasks should be developed with performance standards for different pay grades.

Workshops for inservice education in subject matter content should be offered periodically to assist teacher aides in improving their competencies.

Seminars for college credits should be arranged with local institutions for the aides who are performing at the higher levels of proficiency.

A record form which would permit accumulation of teacher aide training information should be developed.

An experienced teacher aide should be assigned for each twenty to thirty inexperienced aides to help with non-classroom training and to maintain training records.

EVALUATION OF THE

DETROIT PILOT PROGRAM TO TRAIN TEACHER AIDES

SUMMER, 1966

Research and Development Department
Program Evaluation Section
Detroit Public Schools
May, 1967

EVALUATION OF THE DETROIT PILOT PROGRAM TO
TRAIN TEACHER AIDES, SUMMER, 1966

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EVALUATION OF THE DETROIT PILOT PROGRAM TO TRAIN TEACHER AIDES*

Background of the Program

The employment of teacher aides and other auxiliary personnel in the Detroit Public Schools increased sharply in the mid-sixties from a few to over 600 individuals. Prior to the initiation in 1961 of the use of teacher aides in the Great Cities Project, non-professional school employees were limited to clerical, custodial, and monitorial services.

In the intervening years since 1961, educational, social, and economic forces contributed to the expanding employment of non-professional personnel in the classroom at a pace which prevented preservice orientation or inservice training guidelines for teachers and teacher aides. Included in these converging forces were (1) the everchanging and expanding needs for school services delayed by the acute shortages of teachers in metropolitan school systems, (2) greater awareness of the special learning problems of and the need for compensatory educational experiences for minority groups, (3) the changing nature of urban populations, (4) recognition of the existing communication block between many middle-class oriented teachers and their lower-class oriented pupils, (5) the plight of individuals unable to compete in an increasingly automated economy, and (6) the availability of federal, state, and private financial grants. The circumstances under which these funds could be secured and the urgent need for teacher aides and other auxiliary personnel often resulted in crash programs. Under these conditions, the careful planning required to train teacher aides and the teachers with whom they work was seldom possible.

The Purposes of the Program to Train Teacher Aides

The Detroit Pilot Program to Train Teacher Aides was conceived as an exploratory and developmental program in an emerging team approach of professionals and

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non-professionals in the instructional phase of education similar to that used in other professions. The medical and engineering fields, also beset with acute shortages of professionals, have for a number of years successfully trained and employed non-professionals at various skill levels to assume many of the routine housekeeping and clerical tasks as well as some of the technical ones to release the professionals for more productive endeavors.

The program as conceived and carried out sought to differentiate the roles of the teacher aide and the teacher in the instructional program; to provide teachers with an opportunity to plan, organize, and evaluate the use of teacher aides as part of an instructional team; to evaluate the effectiveness of the different components of the program in improving the skill, knowledge, and understandings of the teacher aide as a member of the team; and to develop and evaluate teacher aide selection procedures and instruments.

Briefly stated, the two main purposes of the program are:

(1) the identification, definition, and development of the role of the teacher aide, and

(2) the identification of effective methods for training and utilizing teacher aides.

The Operation of the Program

The program was funded through a grant from the Office of Economic Opportunity Community Action Program for a six-week period from June 27 through August 5, 1966.

Staff, including a director and three assistant directors, were obtained from among Detroit Public Schools administrative personnel employed in four schools using a large number of school service assistants. Services of consultants from Wayne State University and the Detroit Public Schools, Division for the Improvement of Instruction were contracted for the program. A full-time evaluator was employed.

Forty teachers from the summer school staffs of the Duffield Elementary, Miller Junior High, and Northeastern High Schools, where teacher aide training

practicums were to be conducted, were selected for the program. Preference in the selection of teachers was given to those who had previously worked with school service assistants in the classroom.

Forty teacher aides were selected for training from among the 150 who were employed in the four schools involved in a saturation approach to the use of school service assistants. They were recommended by the principals and staffs of these four schools as being the most likely to benefit from the proposed training.

The Detroit Pilot Program to Train Teacher Aides is one of fifteen national demonstration projects using auxiliary personnel in education that the Banks Street College of Education of New York City was charged with studying and evaluating. The Research and Development Department of the Detroit Public Schools was assigned the responsibility for evaluating the local program.

The forty teachers met with the director and assistant directors during the first week of the project, before the teacher aides began training, to identify those teaching tasks that could be performed in total or in part by a train teacher aide. The teachers also indicated what training they felt would be required by the teacher aides to enable them to perform these instructional tasks. The general program plan which evolved from the teacher suggestions or program objectives follows:

1. A series of forty lectures, discussions, films or film strip presentations was arranged to cover such topics as teacher aide role, structure of education, child growth and development, record keeping, and approximately twenty other related topics. Most of these activities were held daily for the aides from 9:00 a.m. to 10:45 a.m. Nineteen individuals, including Wayne State University instructors, Detroit Public Schools central staff members, and community service personnel provided these services.

2. The teacher aide worked daily in the classroom with the teacher from 11:00 a.m. to 12:30 p.m. The teacher and teacher aide made independent evaluations of the aide's effectiveness in accomplishing the assigned tasks. Forty-two certificated individuals visited the classrooms to make observations.

3. In the afternoon, from 1:00 p.m. to 3:00 p.m., the teacher and teacher aide prepared daily lesson plans. The teacher would prepare the general plan for the next day and divide it into various instructional tasks. The

teacher and teacher aide would then determine the instructional functions the aide could perform and these were incorporated into the daily lesson plan and served as the basis for evaluating the aide's effectiveness.

4. The observers and administrators observed classroom performances and met with the teachers and teacher aides to assist them in the planning of daily lessons, evaluating the aide's performance, and in working out teacher and/or aide problems.

Scope and Limitations of the Evaluation

The evaluation includes appraisals of effectiveness of the teacher aide in giving assistance in the instructional process, effectiveness of the teacher in utilizing the teacher aide, development of the teacher aide role, teacher aide selection procedures, and training methods for teacher aides.

Instruments Used to Gather Data

Evidence of the program's effects was collected through the use of 13 different data gathering instruments; 6 were locally developed, specifically for the program, and 7 were developed outside the school system. One of the outside instruments was prepared especially for the teacher aide training study in the 15 national centers while the others were published tests and inventories.

The following locally developed instruments were used:

Teacher Aide Information Sheet--concerning age, sex, marital and family status, educational history, special training, hobbies, interests, and previous teacher aide experience--was completed by the teacher aides.

Teacher Questionnaire--concerning the frequencies with which teacher aides performed selected activities and the extent these activities could be carried out by the teacher aide, the helpfulness of the program in improving certain teacher aide competencies, estimates of the program effectiveness, and recommendations for similar programs in the future--was completed by the teachers on the final day of the program.

Teacher Aide Questionnaire--concerning the helpfulness of the program in improving certain skills and understandings and the contribution of the three components of the program to this improvement--was completed by the teacher aides on the final day of the program.

Daily Lesson Plan--concerning the teacher's general plan, approximate time sequences, and the aide's expected activities--was prepared daily by the teacher in concert with the aide.

Daily Evaluation Sheet--concerning the effectiveness of the aide's activities --was completed daily by the teacher and teacher aide.

Report of Process Observation--concerning the teacher, teacher aide, and student classroom activities--was prepared by observers on each visit.

Other instruments used in gathering data included the following:

Activity Sheet--concerning the aide's helpfulness to pupils and the school, and the frequencies with which the aide performed 95 listed activities--was completed by all of the participating teachers, teacher aides, and administrators. The Activity Sheet was prepared by the Banks Street College of Education for the National Study of Auxiliary Personnel in Education.

Kit of Reference Tests for Cognitive Factors--including parts of three subtests: Card Rotation (S-1), which measures the ability to perceive spatial patterns or to maintain orientation with respect to objects in space, Consequences (O-3), which required the listing of consequences for certain hypothetical situations, and the Sensitivity to Problems (S-2), which requires the listing of consequences for certain hypothetical solutions--was administered to the teacher aides.

Iowa Tests of Basic Skills, Form 3--containing eleven subtests measuring educational achievement--were administered to the teacher aides.

Hackman-Gaither Vocationa. Interest Inventory--containing items functionally related to occupational fields--was completed by the teacher aides.

Gordon Personal Profile--yielding four personality scale scores--was completed by the teacher aides.

Allport-Vernon-Lindzey Study of Values--indicating the relative prominence of six interests or motives--was administered to the teacher aides.

Locus of Control--containing items designed to identify individuals who feel that they have little control over their destinies--was completed by the teacher aides. This instrument was designed by E. Jerry Phares of Kansas State University.

Treatment of the Data

The data collected were subjected to various analyses. Descriptive statistics were computed for some of the data obtained from the collection instruments. The daily lesson plans and the teacher and teacher aide evaluations of the planned daily activities were subjected to content analysis, and were classified and summarized. Responses to selected questionnaire items were tabulated, and the responses to open-end questions were content analyzed, classified, and summarized.

The Activity Sheet was administered as a pre- and post instrument to the teacher aides, teachers, and administrators. Prior to the training they were asked to estimate how helpful each of the 95 activities would be for the pupils and the school if performed by the aide, and how often they believed an aide was likely to perform the activity. Four choices were listed for the "how helpful" responses and four for the "how often" responses. The choices were assigned numerical values on a four-point scale, 1-4. The responses in terms of these values were summed to provide two scores for each activity. For each group of respondents, correlation coefficients were computed to determine the relationships between the "how help ol" and "how often" scores.

The 95 Activity _ et items were also classified into three categories and the "how helpful" response values for the three groups of respondents were subjected to an analysis of variance.

Limitations of the Evaluation

The evaluation is limited in several ways.

Questionnaires are the most practical devices available for gathering certain information, although they contain inherent limitations. Semantics, faulty perception or memory, respondents' biases, placing self in a more favorable light, conforming to socially accepted patterns, and respondents' systems of values may affect the validity of responses.

The organization of summer school classes, sometimes with a variety of grade levels within the same room, and the fact that pupils attend on a voluntary basis are features that differ from the regular school programs.

The teacher aides who participated in the program had previously been employed in the schools, from one to four months, as material and service assistants.

Criteria for teacher and teacher aide evaluation of the aides' performance of the planned daily activities were not documented.

The teachers' final ratings in which all but one of the teacher aides were rated satisfactory were not further delineated. This precluded comparison of success ratings with other measures available on teacher aide characteristics.

Product Evaluation

Product evaluation of the program for training teacher aides is concerned with outcomes of the program related to teacher aide effectiveness in assisting teachers and teacher effectiveness in using teacher aides.

Findings from the Data

Generally, the data tend to support the feasibility of using teacher aides to assist more directly in instructional tasks, as well as in clerical, monitorial, tutorial, and housekeeping tasks. More specific findings are reported in the following discussion.

Teacher Aide Effectiveness in the Instructional Process

Tabulation, of the teacher ratings of the performance of their teacher aide, indicates that the aides were effective in performing the planned activities. Thirty-nine of the forty teacher aides were rated satisfactory by the teachers with whom they worked in the classroom.

The teachers and teacher aide responses to the Daily Evaluation Sheet question regarding the quality of the aide's performance of the planned activities were classified and tabulated. Of the 1368 responses from both groups, 99 percent of the ratings were classified as "good," "very good," or "excellent." The proportion of "very good" and "excellent" ratings by the teachers was substantially higher than that of the aides, especially for clerical tasks.

Teacher Utilization of the Teacher Aide

Analysis of the daily lesson plans, teacher evaluations of the daily lesson plans, teacher questionnaire responses, and classroom observation reports indicated

that the teachers generally utilized the aides in a variety of ways consistent with the program objectives.

The teachers' daily lesson plans listed the activities that the aides were expected to perform. These included clerical, monitorial, tutorial, housekeeping, and instructional tasks. The wide range of grade levels and the many content areas included in the summer school program preclude a meaningful classification of these activities for a quantitative summary.

Observers reported 430 visits to the classrooms to view the efforts of the teacher-teacher aide teams. Approximately ten percent of the visits were made during the second week of the program, twenty percent during the third week, forty percent during the fourth week, twenty percent during the fifth week, and ten percent during the sixth week. The purpose of the scheduled observations was to determine the relevance of the classroom activities of the teacher aides to the learning of tasks which they could perform to provide the best assistance to the teacher. Approximately thirty percent of the observation reports indicated that there was progress toward effective use of the teacher aides, while ten percent indicated that there was no apparent movement toward this goal. The reports indicate that the teachers were gaining experience in planning and coordinating the activities of the teacher aides in various clerical, monitorial, tutorial, housekeeping, and instructional tasks. There is evidence to justify the conclusion that the teachers were becoming effective in utilizing the teacher aides in the classroom.

Process Evaluation

The data presented in the product evaluation section of this report indicate that the program to train aides was proving successful in providing the aides with a foundation of knowledges, skills, and understandings which increased their effectiveness; and also in assisting the teachers in their newly emerging roles as

planners and coordinators of non-professional personnel in the instructional process. The elements of the training program which contributed to this success will receive consideration in this section on process evaluation.

Identifying the Role of the Teacher Aide

Teacher responses to questionnaire and Activity Sheet items and observer reports of visits were used to identify some of the activities performed by the teacher aides.

The items listed below are the activities which more than 50% of the teachers reported as being performed "often" or "most of the time" by teacher aides.

Instructional

In complete charge of class for brief periods
Supervising class while teacher works with small group
Working with small groups on a project
Leading class discussion
Demonstrating to the class
Leading plays and games
Acting out stories
Reading to class
Suggesting possible activities
Preparing lessons
Encouraging students to extend themselves
Counseling students on health and safety
Counseling students on personal matters
Relating work or travel experiences to the class

Tutorial

Tutoring individual students
Listening to a pupil tell a story
Helping individual pupils improve special skills (gym, sewing, dancing, etc.)

Housekeeping

Getting classroom ready for the next day
Passing out and collecting materials
Checking supplies
Preparing visual materials
Selecting materials to be used
Making arrangements for the use of equipment
Operating equipment such as movie and slide projectors, tape recorders, etc.

Monitorial

    Stopping disruptive behavior
    Monitoring tests
    Acting as the adult chaperone on a trip

Clerical

    Collecting milk money, etc.
    Checking homework
    Keeping records, such as attendance and health
    Grading student papers

These thirty-four activities which teachers and observers indicated were being performed "often" or "most of the time" by the teacher aides encompass a variety of supportive tasks which were helpful to the teacher in the classroom.

The following lists of activities are those for which sixty percent or more of the teacher responses to the questionnaire and Activity Sheet items were checked as "seldom" or "never" performed by the teacher aide.

Instructional

    Being in complete charge of the class for an hour
    Introducing a new concept
    Leading oral reading
    Dictating objective tests, spelling words, etc.
    Assigning students to work groups for projects or study
    Assigning homework
    Preparing test questions
    Correcting essay exams
    Helping to determine report card marks
    Discussing a student with the counselor or administrator
    Calling a parent to discuss a student
    Visiting a parent to discuss a student
    Making anecdotal records on students
    Diagnosing a student's problems
    Deciding on a treatment of the problem
    Administering other types of punishment
    Sponsoring a student activity
    Helping to coach a school team
    Working on a faculty committee
    Representing the school at community meetings

Tutorial

    Supervising practice (piano, games)

Monitorial

>Giving first aid to pupils
>Taking home pupils who are sick or hurt

Clerical

>Entering confidential information on a student's records
>Searching student's records for pertinent information
>Gathering information about a student's home life for pertinent reasons

Although a majority of the teachers reported the twenty-seven activities listed above as "seldom" or "never" performed by the teacher aide, some teacher aides were performing them with greater frequency. There is the possibility that some of the teacher aides lacked the specialized skill or knowledge to perform some of these tasks adequately, or that the teachers were reluctant to allow the teacher aides to perform activities which could be construed as violations of statutes or policies, or an abrogation of the teachers' responsibilities.

Defining the Role of the Teacher Aide

The monitorial, escorting, technical, clerical, housekeeping, and instructional tasks that the teacher aides performed during the program have already been listed. These activities can be refined and developed to apply to most content areas and grade levels. There is some concern that over zealous or harried administrators or teachers may over-utilize the teacher aides in violation of state statutes, Board of Education policy, or employee agreements. It is also possible that under-utilization of the teacher aides may result unless the teacher and administrator have a clear understanding of the teacher aide role. The authority relationship of the teacher aide with the pupils and the confidential nature of pupil records are of primary concern. As an example of the authority relationship enigma, seventeen teachers' responses to item 78 on the Teacher Questionnaire--"In your opinion what should be the aide's authority relationship with students?"--ranged from "None, except to give directions" to "Subordinate, only to that of the teacher." A policy statement is necessary to provide guidelines for utilizing teacher aides.

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Developing the Role of the Teacher Aide

The teachers met during the first week of the program to examine the range of their teaching functions and identify those activities which might be performed adequately by the teacher aides. Administrators and consultants met with the teacher and teacher aide, after observing classroom activities, to assist them in developing and extending the teacher aide role in the instructional process. Classification and analysis of the teachers' daily lesson plans, the teachers' and teacher aides' Activity Sheets and questionnaires, and the observers' reports indicate that the teacher aides were involved in many observational, monitorial, escorting, technical, clerical, housekeeping, and instructional activities. The role development of the individual teacher aides, however, was not consistent. Many possible factors could have contributed to this inconsistency. No pre-training data were available on the teacher aides' skills, subject matter knowledge, or previous classroom experience. The teacher's adaptability in coordinating the activities of other adults in the instructional process, the teacher's personality, the grade level of instruction and content may all have contributed to variability in the development of the teacher aide role. An analysis of individual teacher aide activities during the six-week period reveals that some were limited primarily to monitoring, escorting, and clerical activities while others were involved predominantly in tutorial and instructional activities. Which factors accelerated or restrained the development of the teacher aide role cannot be assessed at this time. A policy statement regarding responsibilities of the teacher aide would assist in clarificat'on and provide impetus to a fuller development of the teacher aide role.

Selection and Characteristics of Teacher Aides

The selection of school service assistants, the group from which the teacher aides were drawn, followed the established policies of the Detroit Public Schools Personnel Department. Announcements of the position openings were sent to the

schools, the Michigan Employment Securities Commission, and the Detroit Total Action Against Poverty offices. Interested applicants were referred to the principals of schools authorized to employ school service assistants.

In February, 1966, the Personnel Department issued two memoranda to assist principals in recruiting, selecting, and assigning school service assistants. The principal was urged to select residents of his own school area who had demonstrated ability to get along with the staff, adaptability in working with children, and other particular skills, even though the educational requirement of high school graduation was not met. The principal determined the number of hours per week, not to exceed 40, that each school service assistant assigned to his school would work. Six salary grades ranging from $1.25 to $2.50 an hour, with a 25 cent an hour differential, were established. Ability, position, and the individual school's quota for assistants determined the salary classification of the school service assistant. The participants for the teacher aide training program were selected from among the school service assistant personnel. Thus, the teacher aides had had some experience as material and clerical aides.

A summary of characteristics of the teacher aides participating in the program is in the following list.

Age: Range, 18-57; median, 35.5 years

Sex: Male, 0; female, 40 teacher aides

Marital Status: Single, 10; married, 22; divorced, 8 teacher aides

Number of Children: Range, 0-9; median, 2 children

Years of Schooling: Range, 10-15; median, 12 years

Years Since Last Schooling: Range, 1-38; median, 10.5 years

Work Experience: None, 0; some clerical, 24; some other work experience, 16

Initially, the teacher aides were employed with no selection tests being administered to them. The Banks Street College of Education and the project director were interested in obtaining test scores for the teacher aides for guidance in

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future selection procedures. A brief summary of the results of the achievement

tests and inventories follows:

1. On the Gordon Personal Profile, all of the teacher aides' scores were
   below the 15th percentile on the norms for female clerks and stenographers
   for the Ascendency, Responsibility, Emotional Stability, and Sociability
   scales.

2. On the Iowa Tests of Basic Skills, the means in terms of grade equivalent
   units, for the eleven subtests were: Vocabulary 8.8, Reading Comprehension
   7.4, Spelling 9.2, Capitalization 7.9, Punctuation 8.2, Language Usage 7.7,
   Map Reading 5.4, Reading Graphs and Tables 6.5, Knowledge and Use of Refer-
   ence Materials 7.0, Arithmetic Concepts 5.5, and Arithmetic Problem Solving
   7.3.

3. On the Allport-Vernon-Lindzey Study of Values, comparison of the means
   with the special norms indicate that the teacher aides are similar to
   women dietitians on the Theoretical, Political, and Religious scales,
   similar to married nurses on the Economic and Aesthetic scales, and simi-
   lar to hospital social workers on the Social scale.

4. On the Locus of Control, the mean raw score for the teacher aides was
   similar to that of individuals who felt that they had some control over
   their destinies.

5. On the Hackman-Gaither Vocational Interest Inventory, the mean raw scores
   for the teacher aides were in the upper quartile for the Business Contact,
   Artistic, Health and Welfare, Business Clerical, and Service scales.

No attempt was made to correlate teacher aide test scores with teacher ratings

of the aides because all of the teacher aides, except one, were rated satisfactory.

The raw score means, standard deviations, and ranges for the above listed instru-

ments are included in the appendix.

Helpfulness of the Training Program for Developing Teacher Aide Competencies

Teachers and teacher aides completed a questionnaire on the last day of the

program wherein they rated the helpfulness of the training program in assisting

the teacher aide to improve their skills and knowledge in certain competencies.

A summary of these responses is listed in Table 1.

Table 1

Percents of Teachers' and Teacher Aides' Responses to Questionnaire Items Regarding the Helpfulness of the Training Program in Developing Teacher Aide Competencies

Frequencies of Teacher Responses in Percents			Teacher Aide Competence	Frequencies of Teacher Aides' Responses in Percents		
Little or No Help	Some Help	Quite or Very Helpful		Little or No Help	Some Help	Quite or Very Helpful
8	18	74	Understanding child development		3	97
12	26	62	Developing self-confidence	2	15	83
3	29	68	Working with teacher		3	97
14	19	67	Working with small groups		3	97
2	21	77	Developing rapport with children			
			Getting along with children		11	89
21	34	45	Participating in planning			
			Helping to plan	5	5	90
36	32	32	Helping students to locate information			
			Knowing where to look for information	3		97
14	53	33	Preparing materials for the teacher			
			Making things for the teacher	10	11	79
8	44	48	Differentiating between teacher's and aide's responsibilities			
			Understanding the difference between the teacher's job and the aide's job	5	5	90
46	18	36	Demonstrating as the teacher explains			
			Showing students how to do things	3	5	92
33	22	45	Assuming responsibility in unplanned-for situations			
10	51	39	Conceptualizing the course goals			
			Understanding what the teacher is trying to do		3	97
			Understanding how and why children learn or don't learn		12	88
			Understanding records and forms		12	88
			Knowing more about health and nutrition	13	19	68

Questions, regarding some of the teacher-aide competencies, in the Teacher-Aide Questionnaire were expressed somewhat different from those used on the Teacher Questionnaire. Even though the wording on the two questionnaires differs, similar competencies have been paired in the report shown in Table 1, with the recognition that in some instances the paired competencies may be somewhat dissimilar.

Teacher aides reported more help received in improving their competencies than is reflected in the teachers' responses. The majority of both groups felt that the training was "quite" or "very helpful" in improving the teacher aides' understanding of child development, in developing self-confidence, in working with the teacher, in working with small groups, and in developing rapport or getting along with children. The responses of the two groups differ appreciably on such matters as participating in planning, locating information, preparing materials for the teacher, understanding the roles of the teacher and teacher aide, and demonstrating or showing students how to do things. On these items the teacher aides reported receiving much more help in improving their competencies than was reported by the teachers.

Ranking the response frequencies of the two groups reveals that there is close rank agreement on six of the ten similar questionnaire items as to the helpfulness of the program in improving the competencies of the teacher aides. The main difference of opinion seems to be on the program's helpfulness to the teacher aides in developing rapport with or getting along with children. The teachers indicated that this was the competency improved the most, while the teacher aide responses relegated it to a much lower position. The difference in ranks on the paired items, "Helping students to locate information" and "Knowing where to look for information" is probably due to a difference of conceptual focus so that the competencies were not regarded by the respondents as similar functions.

Importance of Training Program Components

The teacher aides were asked to rank the order of importance of the three program components--lecture, experience on the job, and planning with teacher--in helping them to improve their competencies. A majority of the teacher aides (63% to 93%) ranked the lectures as being most important in helping them in:

    Understanding child development,
    Knowing where to look for information,
    Understanding records and forms,

Understanding the difference between a teacher's job and an aide's job,
Understanding how and why children learn or don't learn.

Experience on the job was ranked first by a majority of the aides (53% to 66%)

as being most helpful in:

Getting along with children,
Developing confidence in yourself, and
Working with small groups of children.

Planning with the teacher was ranked first by a majority of the teacher aides

(50% to 86%) in helping them in:

Understanding what the teacher is trying to do,
Working with the teacher, and
Helping to plan.

Relationships Between Values and Frequencies of Teacher Aide Activities

The judgments of the teacher aides, teachers, and administrators regarding

the helpfulness of the 95 teacher aide activities listed on the Activity Sheet were

expected to differ. The perceptions of each group regarding the frequency with

which the teacher aides would perform the 95 activities were also expected to differ.

Nevertheless, a high relationship between the perceived helpfulness of an activity

and the frequency of its performance by the teacher aide was anticipated. This is

supported by the magnitudes of the correlation coefficients.

Correlation coefficients were computed between the "how helpful" and "how

often" scores for each activity resulting from the choices made by the teachers,

teacher aides, and administrators on pretraining and posttraining and administra-

tions of the Activity Sheet. These correlation coefficients are listed in Table 2.

Table 2

Correlations Between Activity Scores Resulting from
Perceived Values (V) and Frequencies (F) of
Performance of 95 Teacher Aide Activities

Respondent Group	Before Teacher Aide Training	After Teacher Aide Training
Teacher Aides	$r_{V,F} = .74$	$r_{V,F} = .91$
Teachers	$r_{V,F} = .82$	$r_{V,F} = .87$
Administrators	$r_{V,F} = .84$	$r_{V,F} = .94$

As expected, the correlation coefficients for the pretraining "how helpful"
and "how often" scores were high positive. The scores obtained after the training
period displayed increases in the correlation coefficients for the three groups.
The reasons for the increases in the correlation coefficients on the posttraining
administration can only be conjectured. It is possible that the experiences pro-
vided in the training program increased each group's perception of how helpful the
aides' performance of the activities would be, or that more opportunities were
provided for the aides actually to perform the activities than had been anticipated
on the pretraining administration.

Categories of Teacher Aide Activities

The 95 items listed on the Activity Sheet were classified into three categories.
T.is clustering of the items was suggested by the Banks Street College personnel
working on the national project and resulted in the following categ ries which were
used to test hypotheses.

Category A included 37 activities which had been judged as offering assistance
to the teacher in instructional tasks and child development, functions that were
directly related to the teaching-learning process.

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Category B included 32 activities which were related to general school functions such as clerical, housekeeping, technical, monitorial, and escorting activities but which were not directly related to the teaching-learning process.

Category C included 26 activities that were considered as being negative or detrimental to instruction and child development such as taking over the teacher's role, undercutting the teacher, or harming child development.

The teacher aides', teachers', and administrators' perceptions of the helpfulness of the teacher aides' performance of the activities in the three categories were expected to differ. This hypothesis was tested by analysis of variance of the activity scores resulting from responses to the Activity Sheet before the training period started. The F ratio was computed in the analysis for the three groups of respondents to test the significance of the expected category differences. Table 3 lists the values computed for the analysis of variance.

Table 3

Analysis of Variance of Pretraining Activity Sheet Scores on
Teacher Aides', Teachers', and Administrators' Perceptions
of Helpfulness of Teacher Aide Activities

	Sum of Squares	df	Mean Square	F ratio*
Groups	20474721.2	2	10237360.6	33.74
Categories	3478682.9	2	1739341.4	5.74
Residual	1212415.5	4	303103.9	
Total	25165819.6	8		

*Compares with $F_{.95 (2,8)} = 4.46$

The F ratio for the groups and categories is significant at the .05 level of confidence. Thus, the hypothesis of differences between the groups in their perceptions of the aides' helpfulness through the performance of activities is supported.

Differences in the category scores were expected because the activities in Category C were considered negative or detrimental activities. Table 4 which lists the category means for pretraining and also the posttraining scores of the three groups will be used to further interpret the data in Table 3.

Table 4

Activity Sheet Category Means of Scores Rating
the Helpfulness of Teacher Aide Activities

	Category A Instructional Activities		Category B General Activities		Category C Negative Activities	
	Pre-training	Post-training	Pre-training	Post-training	Pre-training	Post-training
Teacher Aides	2.26	2.53	1.92	2.33	1.40	1.63
Teachers	2.45	2.35	2.48	2.43	1.64	1.49
Administrators	3.76	3.15	2.79	3.03	1.74	1.56

Inspection of Table 4 shows that pretraining category means of the "how helpful" scores for the three groups differ in all three categories. For Category A, instructional activities, the teacher aides' perceptions of the helpfulness of their performance of these activities is much less than that of the teachers and administrators. For Category B, general activities, the teacher aides' mean is again lower than that of the other two groups; also it is lower for Category C, the negative functions. The teacher aides' lower mean on Category C is perplexing. They assigned a lower value to the helpfulness of the negative or detrimental activities than did the teachers and administrators. Any interpretation of this difference, based on the data collected, would be speculative in nature.

An analysis of variance of the posttraining "how helpful" scores was made for the three groups, teacher aides, teachers, and administrators, to evaluate the effectiveness of the lecture and practicum phases of the training program on their

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perceptions. If the lectures and practicum phases had been equally effective, there should be no group differences but there would be category differences. Table 5 summarizes the analysis of variance.

Table 5

Analysis of Variance of Posttraining Activity Sheet Scores on
Teacher Aides', Teachers', and Administrators' Ratings of
Helpfulness of Teacher Aide Activities

	Sum of Squares	df	Mean Square	F ratio*
Groups	21751252.6	2	10875626.3	22.80
Categories	5262020.6	2	2631010.3	5.51
Residual	1897744.8	4	476938.2	
Total	28911018.0	8		

*Compares with $F_{.95\ (2,8)} = 4.46$

The F ratio is significant at the .05 level for the groups, thus rejecting the hypothesis that the effectiveness of the lecture and practicum phases of the program was equal for teacher aides, teachers, and administrators. An inspection of Table 4 indicates that after the training period the teacher aides rated their instructional activities more helpful than did the teachers and rated their general activities less helpful than did the teachers. After the training period, the teachers rated the teacher aide activities in Category C, the somewhat negative ones, as being less helpful than the teacher aides rated them. Administrators gave more helpful ratings to the teacher aide activities in all three categories than did the teachers or teacher aides.

Suggestions from Teacher Aides

The teacher aides' responses to the question of what changes should be made in the program, if it were offered again for other aides, seem to support the conclusion that the practicum was more effective than the lecture phase of the training program. The suggestion most frequently written by the teacher aides was that more time was needed in the classroom. The lecture phase was referred to negatively by the teacher aides most frequently. The frequencies of typical responses to the question follow:

Response	Frequency
More time in the classroom	23
Fine, rewarding, as is	11
Refresher help in subjects	9
Fewer lectures	8
No lectures in the afternoon	4
Work with audiovisual equipment	4
Miscellaneous	8

Teacher Orientation

Summaries of <u>Teacher Questionnaires</u> and <u>Observers' Reports</u> were used to evaluate the effectiveness of the program in terms of assisting teachers in gaining experience and understanding their emerging role as coordinators of para-professional personnel services in the instructional process.

Listed below are some teacher responses to the questionnaire item: "Of what personal value was this workshop to you?"

"It helped me to visualize better ways in which an aide might be of help in the classroom."

"Changed my attitude. I had not realized that a teacher and an aide together could successfully plan learning experiences for children."

"Provided for working with smaller groups of children, hopefully improving the quality of instruction."

"I learned to work with another individual in the classroom."

"I became aware of ways an aide could really help in the classroom."

"It made me aware of the beneficial and detrimental aspects of a teaching aide."

Observers' reports were examined and the aides' activities categorized and tallied. The following list indicates the frequencies of performance of aide activities as reported by observers.

Aide Activity	Frequency of Performance
Assisting individual pupils	150
Clerical, including correcting papers	94
Explaining, demonstrating, reviewing	91
Working with groups, less than class size	84
Proctoring, monitoring	59
Orientation, observation	34
Audiovisual material construction	23
Audiovisual equipment operation	21

The teachers used the teacher aides in a variety of ways, more often in instructional tasks than supportive functions. From the teachers' responses to the questionnaire and the observers' reports of the activities performed by the teacher aides, it seems that the teachers had gained experience and understanding of their emerging role as coordinators of the instructional process.

Conclusions

The teacher aides were effective in the instructional process as indicated by the teachers' final ratings of "satisfactory" for the thirty-nine of the forty in the program. In addition, ninety-nine percent of the teacher and teacher aide responses regarding the quality of the aides' performance of the planned activities were classified as good, very good, or excellent.

Teachers utilized teacher aides in clerical, monitorial, tutorial, house-keeping, and instructional tasks. Teachers gained experience in understanding their emerging role as coordinators of multi-level trained personnel in the instructional process. Approximately thirty percent of the observers' reports indicated that the planned activities were relevant to the learning to perform helpful tasks by the teacher aides.

Teachers responding to the Activity Sheet and the questionnaire indicated thirty-four activities that the teacher aides performed sometime, often, or most of the time and twenty-seven activities which were seldom or never performed.

Development of the role of the teacher aide awaits a policy statement clarifying liabilities, and responsibilities as a guideline for subsequent establishment of training programs.

The aptitude, achievement, and personality measures used did not seem related to the effectiveness of the teacher aides in their assignments. Selection of teacher aides by the principal and his staff on the basis of school area residency, adaptability, special skills, and ability to get along with staff and children seems to have provided trainable personnel. The possibility of requiring an aptitude and a reading achievement test for career development purposes should be considered.

Training of teacher aides involved lectures and discussions, practicum, and planning with the teachers. The teacher aides indicated by their questionnaire responses that this training was quite helpful or very helpful in improving their competencies in all fourteen listed skills or knowledges. The teachers indicated on their list of twelve activities that the training improved the competencies of the aides in five of these activities. The teacher aides ranked the lectures and discussions as most important in improving their competencies in six of the listed activities; the practicum as most important in three of the listed activities; and, planning with the teacher as most important in three of the listed activities. For two of the listed activities, the teacher aides assigned almost equal importance to the three training methods in improving their competencies.

Recommendations

1. The practice of selecting teacher aides from among those recommended by the principal should be continued. The criteria should be school area residency, ability to get along with staff and children, adaptability, specialized skills, and tenth grade education.

2. All teacher aides should receive preservice orientation before assignment to a school.

3. Films, filmstrips, and possibly programmed materials should be developed to replace some lecture presentations and augment others. Tests should be developed to assess the value of these methods in imparting information.

4. Aptitude and achievement tests should be administered to teacher aides during the preservice orientation period to serve as a basis for grade level and content area placement recommendations.

5. Career development counseling should be initiated during the preservice orientation.

6. Classroom observations of other teacher aides in action should be included in the preservice orientation program. These observations could be in the classrooms of the four schools employing teacher aides on a saturation basis.

7. One experienced aide should be assigned for each twenty teacher aides to assist them in the indoctrination period and then to monitor their training and maintain records for each.

8. A training standards chart listing the teacher aide activities and expected level of skill and knowledge should be developed. The pay grade of the teacher aide could be dependent on the proficiency level as shown on the chart.

9. A hierarchy of tasks should be developed to embrace instructionally related tasks, from the simplest level to the sub-professional level.

10. Workshops for different subject matter areas should be offered periodically to improve the teacher aide's knowledge of content.

11. Seminars providing college credit should be arranged for those aides at a high proficiency level.

12. A form should be developed for recording the training of the aides. These records could serve as a basis for planning additional inservice training programs.

13. Inservice training should be provided for teachers who will work with the teacher aides.

APPENDIX

TEACHER AIDE INFORMATION SHEET

(A STUDY OF AUXILIARY PERSONNEL IN EDUCATION)

LAST NAME_____ FIRST NAME_____ MIDDLE NAME_____
(Please print)
MAIDEN NAME (if married)_____

ADDRESS_____ PHONE_____SOC.SEC.NO._____

DATE OF BIRTH _____ BOARD OF EDUCATION FILE NUMBER_____

SEX_____ ARE YOU (check one) SINGLE _____ MARRIED _____ DIVORCED_____

WIDOWED _____ SEPARATED _____ ANY CHILDREN? _____ AGES _____

EDUCATIONAL HISTORY

Please circle number of school years completed: 1, 2, 3, 4, 5, 6. 7, 8, 9, 10, 11, 12

College: 1, 2, 3, 4, 5

Majors _____ Minors _____

Name of last school attended _____

What was the last date (year) you attended school as a student? _____

Location of school _____

Describe any special training, hobbies, or interests you have had that would be useful in helping our teachers: (Typing, dramatics, child care, filing, sewing, shop skills, etc.)

_____

_____

_____

Which of these above skills have you been called upon to use as an aide?

_____

_____

PREVIOUS TEACHER AIDE EXPERIENCE

Name of school where you worked as an aide _____

How long were you working there as an aide? _____

Subjects and grades in which you assisted teachers _____

_____

_____

Tell us any other information which might be of importance in your work as an aide _____

_____

_____

_____

TEACHER AIDE QUESTIONNAIRE

<div align="right">

1	2

</div>

3. School _____

4-5. Please circle number of school years completed:

    1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12

    College: 1 - 2 - 3 - 4 - 5

6. Check the subject area you are now working in:

    0. Social Studies___ 1. English___ 2. Science___ 3. Math___ 4. Fine Arts___

    5. Library___ 6. Typing___ 7. Homemaking___ 8. Shop___ 9. Headstart___

7. Check the grade level at which you are now working:

    0. Pre-school___ 1. Elementary___ 2. Junior High___ 3. High School___

    4. Adult___

8. Program:

    0. Regular Summer School___ 1. Cultural Enrichment___ 2. Extended School___

    3. Great Cities___ 4. Headstart___

In your opinion to what extent has this workshop been helpful to you in the areas described (check one for each number). In the last three columns number 1 - 2 - 3 in order of importance the section of the workshop which gave you the most help in this area.

	No Help	Little Help	Some Help	Quite Helpful	Very Helpful	Lectures	Experience On the Job	Planning with Teacher
9. Understanding child development	___	___	___	___	___	___	___	___
10. Getting along with children	___	___	___	___	___	___	___	___
11. Understanding what the teacher is trying to do	___	___	___	___	___	___	___	___
12. Developing confidence in yourself	___	___	___	___	___	___	___	___
13. Working with the teacher	___	___	___	___	___	___	___	___

	No Help	Little Help	Some Help	Quite Helpful	Very Helpful	Lectures	Experience On the Job	Planning with Teacher
14. Helping to plan	___	___	___	___	___	___	___	___
15. Knowing where to look for information	___	___	___	___	___	___	___	___
16. Making things for the teacher to use	___	___	___	___	___	___	___	___
17. Showing students how to do things	___	___	___	___	___	___	___	___
18. Working with small groups of students	___	___	___	___	___	___	___	___
19. Understanding records and forms	___	___	___	___	___	___	___	___
20. Understanding the difference between a teacher's job and an aide's job	___	___	___	___	___	___	___	___
21. Knowing more about health and nutrition	___	___	___	___	___	___	___	___
22. Understanding how and why children learn or don't learn	___	___	___	___	___	___	___	___

23. How would you explain the teacher aide program to parents?

24. What should a new aide be taught before assignment to a school?

25. If we decide to set up three pay rates for aides ($1.75, $2.50, $3.50)
    what should be the requirements for each?

26. If this workshop were to be given again to other aides, what changes should
    be made in the way it is run?

TEACHER QUESTIONNAIRE

3. School _____

   Years teaching ___ ___   6. Sex: Male____ Female ____
                    4   5   0   1

6. Subject:

   0. Social Studies_____   1. English_____   2. Science_____   3. Math_____

   4. Fine Arts_____   5. Library_____   6. Typing_____   7. Homemaking _____

   8. Shop_____   9. Headstart_____

7. Grade level:

   0. Pre-school_____   1. Elementary_____   2. Junior High_____

   3. High school_____   4. Adult_____

8. Program:

   0. Regular Summer School_____   1. Cultural Enrichment_____

   2. Extended School_____   3. Great Cities_____   4. Headstart_____

9. Did you have an aide last term?   0. Yes_____   1. No_____

In the following section respond to each item. There are two sets of
columns. In the first set indicate how often your aide carried out each activity
listed. In the second column express your opinion as to what degree you consider
the activity to be a responsibility of the teacher or to what extent it could be
performed by an aide.

	0 Never	1 Sometimes	2 Often	3 Teacher Always	4 Teacher Primarily	5 Aide Sometimes	6 Aide Often	7 Aide Primarily
10. Correcting essay exams	___	___	___	___	___	___	___	___
11. Preparing test questions	___	___	___	___	___	___	___	___
12. Grading student papers	___	___	___	___	___	___	___	___
13. Helping to determine report card marks	___	___	___	___	___	___	___	___
14. Preparing visual materials	___	___	___	___	___	___	___	___
15. Showing and commenting on film strips	___	___	___	___	___	___	___	___
16. Preparing lessons	___	___	___	___	___	___	___	___
17. Suggesting possible classroom activities	___	___	___	___	___	___	___	___
18. Selecting materials to be used	___	___	___	___	___	___	___	___
19. Assigning homework	___	___	___	___	___	___	___	___
20. Checking homework	___	___	___	___	___	___	___	___
21. Monitoring tests	___	___	___	___	___	___	___	___
22. Tutoring individual students	___	___	___	___	___	___	___	___
23. Working with small groups on a project	___	___	___	___	___	___	___	___
24. Demonstrating to the class	___	___	___	___	___	___	___	___
25. Supervising class work while the teacher works with a small group	___	___	___	___	___	___	___	___
26. Leading oral reading	___	___	___	___	___	___	___	___
27. Leading class discussion	___	___	___	___	___	___	___	___
28. Correcting student oral speech errors	___	___	___	___	___	___	___	___

	0 Never	1 Sometimes	2 Often	3 Teacher Always	4 Teacher Primarily	5 Aide Sometimes	6 Aide Often	7 Aide Primarily
29. Being in complete charge of the class for an hour	___	___	___	___	___	___	___	___
30. Being in complete charge of the class for brief periods	___	___	___	___	___	___	___	___
31. Dictating objective tests, spelling words, etc.	___	___	___	___	___	___	___	___
32. Reading to the class	___	___	___	___	___	___	___	___
33. Acting out stories	___	___	___	___	___	___	___	___
34. Making health examinations	___	___	___	___	___	___	___	___
35. Supervising practice (piano, dance)	___	___	___	___	___	___	___	___
36. Leading play and games	___	___	___	___	___	___	___	___
37. Stopping disruptive student behavior	___	___	___	___	___	___	___	___
38. Counseling students on personal matters	___	___	___	___	___	___	___	___
39. Administering corporal punishment	___	___	___	___	___	___	___	___
40. Administering other types of punishment	___	___	___	___	___	___	___	___
41. Calling parents to discuss a student	___	___	___	___	___	___	___	___
42. Visiting parents to discuss a student	___	___	___	___	___	___	___	___
43. Making anecdotal notes on students	___	___	___	___	___	___	___	___
44. Searching student records for pertinent information	___	___	___	___	___	___	___	___

	0 Never	1 Sometimes	2 Often	3 Teacher Always	4 Teacher Primarily	5 Aide Sometimes	6 Aide Often	7 Aide Primarily
45. Diagnosing student problems	___	___	___	___	___	___	___	___
46. Deciding on treatment of the problem	___	___	___	___	___	___	___	___
47. Assigning students to work groups for projects of study	___	___	___	___	___	___	___	___
48. Arranging for speakers	___	___	___	___	___	___	___	___
49. Encouraging students to extend themselves	___	___	___	___	___	___	___	___
50. Introducing a new concept	___	___	___	___	___	___	___	___
51. Relating work or travel experiences to the class	___	___	___	___	___	___	___	___
52. Acting as the adult chaperone on a trip	___	___	___	___	___	___	___	___
53. Discussing a student with the counselor or administrator	___	___	___	___	___	___	___	___
54. Sponsoring a student activity	___	___	___	___	___	___	___	___
55. Helping to coach a school team	___	___	___	___	___	___	___	___
56. Representing the school at community meetings	___	___	___	___	___	___	___	___
57. Working on a faculty committee	___	___	___	___	___	___	___	___
58. Counseling students on safety and health	___	___	___	___	___	___	___	___
59. Entering confidential information on a student's records	___	___	___	___	___	___	___	___
60. Gathering information about a student's home life for pertinent reasons	___	___	___	___	___	___	___	___

61. In your opinion what should be established as <u>minimum</u> requirements for teacher aide applicants (i.e., age, education, achievement level, work experience, skills, attitudes, residence, health, etc.)

62. Should there be different levels of aides?   Yes____   No ____
If yes, how do you suggest they be organized?
(Requirements, duties, pay, promotion, training, etc.)

63. Was this workshop successful in reaching its goals?

    a. No____   b. Moderately successful____   c. Very successful ____

    How could the workshop have been improved?
    a. Procedures
    b. Curricula
    c. Inter-relations
    d. Staff
    e. Other

64. Should the aide in the future be given training before assignment to a school?

    Yes____ No____.   If yes, what should the aide be taught? (Skills, under-standings, attitudes).

65. In your opinion has this workshop been helpful in improving your aide in the following categories?

	No Help	Little Help	Some Help	Quite Helpful	Very Helpful
66. Understanding child development	___	___	___	___	___
67. Developing rapport with children	___	___	___	___	___
68. Conceptualizing the course goals	___	___	___	___	___
69. Developing self confidence	___	___	___	___	___
70. Working with the teacher	___	___	___	___	___
71. Participating in planning	___	___	___	___	___
72. Helping students locate information	___	___	___	___	___
73. Preparing materials	___	___	___	___	___
74. Demonstrating as the teacher explained	___	___	___	___	___
75. Working with small groups	___	___	___	___	___
76. Assuming responsibility in unplanned for situations	___	___	___	___	___
77. Differentiating between teacher and aide responsibilities	___	___	___	___	___

78. In your opinion what should be the aide's authority relationship with students?

79. How would you explain the teacher aide program to parents?

80. Under what circumstances and to what degree should a teacher be held responsible for the actions of his aide?

81. Under what circumstances, if any, may an aide manage an entire class?

82. What do you foresee as potential problems in the development of an on-going, citywide, teacher aide program?

83. Of what personal value was this workshop to you?

To be filled in by Project Staff:

Form I--Please check one:

Pre-service_____
In-service _____

Please check one:

Form I   A_____ B _____ C_____
          first   second   third
          time   time   time

ACTIVITY SHEET

Name: _____
              (last)   (first)   (initial)

Project: _____

Dates of Operation: From _____   To _____

Grade levels of pupils with whom you will work:_____

Type of job for which you are training:

Assistant Teacher _____   Secretarial Assistant_____
Teacher Aide _____   School Aide _____
Family Assistant _____   Other _____
Family Aide or Worker _____   (If "Other," write in the type of
                                          work you expect to do)

Attached is a list of some activities. Beside each item, CHECK the column on the left which best describes how helpful this particular activity seems to you when performed by an aide, and also CHECK the column on the right which best describes how often you believe you will do this particular activity in the school where you expect to work or are working. If the activity does not fit the grade level of the pupils with whom you will or do work, you would check it as never likely to be done by you on the job.

Example:

Below, please practice by checking the following item which does not appear in the attached form. Discuss this exercise with the person who is showing you how to fill out this form.

HOW HELPFUL TO THE PUPILS AND THE SCHOOLS DO YOU THINK IT WOULD BE IF AN AIDE DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOB?			
Very help-ful	Some-what help-ful	Some-what harm-ful	Very harm-ful	A C T I V I T I E S	Most of the time	Often	Seldom	Never
				Printing a pupil's name on his photograph				

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HOW HELPFUL TO THE PUPILS AND THE SCHOOL DO YOU THINK IT WOULD BE IF AN AIDE* DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOB?**			
Very help-ful	Some-what help-ful	Some-what harm-ful	Very harm-ful	A C T I V I T I E S	Most of the time	Often	Seldom	Never
				1. Playing games with pupils (such as rhyming games, guessing games, finger games).				
				2. Giving most attention to the pupils whom you*** know best.				
				3. Interesting a restless pupil in some of the available activities.				
				4. Preparing audio-visual materials such as charts at the request of the teacher.				
				5. Typing.				
				6. Helping pupils learn how to settle arguments without fighting.				
				7. Making exceptions to rules where you*** believe them to be wrong.				
				8. Stopping pupils from fighting.				
				9. Comforting and supporting a pupil who feels he has been treated unfairly by the teacher.				
				10. Listening to pupils talk about themselves.				
				11. Keeping pupils who talk slowly and hesitantly from wasting the class's time.				
				12. Talking with pupils about what they're doing when they are playing.				
				13. Listening to a pupil tell a story.				

*Or other auxiliary personnel such as assistant teacher.

**Professional personnel who check this sheet should substitute "the type of aide you are working with is" for "you are" in this question.

***Professional personnel who check this sheet should substitute "the aide knows" for "you know."

****Professional personnel who check this sheet should substitute "the aide" for "you."

HOW HELPFUL TO THE PUPILS AND THE SCHOOL DO YOU THINK IT WOULD BE IF AN AIDE* DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOB?**			
Very help- ful	Some- what help- ful	Some- what harm- ful	Very harm- ful	A C T I V I T I E S	Most of the time	Often	Seldom	Never
				14. Operating equipment such as movie projector, slide projector, tape recorder.				
				15. Checking daily on the health of pupils.				
				16. Putting away pupils' toys and materials.				
				17. Putting on and taking off all outdoor clothing of young children for them.				
				18. Giving first aid to a pupil.				
				19. Helping teachers take care of pupils in assembly.				
				20. Washing a pupil's mouth out with soap when he swears.				
				21. Talking quietly with a pupil who is upset.				
				22. Guarding doors of school.				
				23. Taking charge of a small group which is working on a special project while the teacher works with another group.				
				24. Finishing a slow pupil's work for him.				
				25. Taking a small group of pupils on a walk in the neighborhood.				
				26. Taking pupils to and from various places in school (such as lunchroom, nurse's office, principal's office, bathroom).				

*Or other auxiliary personnel such as assistant teacher.

**Professional personnel who check this sheet should substitute "the type of aide you are working with is" for "you are" in this question.

HOW HELPFUL TO THE PUPILS AND THE SCHOOL DO YOU THINK IT WOULD BE IF AN AIDE* DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOB?**			
Very help- ful	Some- what help- ful	Some- what harm- ful	Very harm- ful	A C T I V I T I E S	Most of the time	Often	Seldom	Never
				27. Preparing the questions on tests for the pupils to answer.				
				28. Preparing bulletin board displays.				
				29. Filing and cataloging materials.				
				30. Deciding what pupils need to do in classroom.				
				31. Acting out stories with pupils.				
				32. Planning the homework assignments for pupils.				
				33. Reading and telling stories to pupils.				
				34. Running a duplicating machine.				
				35. Deciding which pupils will need to work together in a reading group.				
				36. Explaining school rules to pupils.				
				37. Keeping records, such as attendance and health records.				
				38. Taking groups of children on a trip.				
				39. Deciding what trips pupils will take during the term.				

*Or other auxiliary personnel such as assistant teacher.

**Professional personnel who check this sheet should substitute "the type of aide you are working with is" for "you are" in this question.

HOW HELPFUL TO THE PUPILS AND THE SCHOOL DO YOU THINK IT WOULD BE IF AN AIDE* DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOB?**			
Very help-ful	Some-what help-ful	Some-what harm-ful	Very harm-ful	ACTIVITIES	Most of the Time	Often	Seldom	Never
				40. Taking charge of pupils at various occasions, such as: during lunch period, in hallways and on bus.				
				41. Helping a teacher plan trips with pupils.				
				42. Deciding what a pupil should study.				
				43. Helping pupils learn how to use the bathroom.				
				44. Helping pupils learn proper use of tools and equipment.				
				45. Helping a pupil use a teaching machine.				
				46. Telling a misbehaving pupil what you really think of him.				
				47. Seeing that a pupil eats all of his lunch.				
				48. Telling a pupil what happened when he was absent.				
				49. Helping pupils move from one activity to another in the classroom.				
				50. Checking playground equip-ment for safety.				
				51. Taking home pupils who are sick or hurt.				
				52. Teaching pupils a subject (such as history, chemistry, arithmetic, or reading).				

*Or other auxiliary personnel such as assistant teacher.

**Professional personnel who check this sheet should substitute "the type of aide you are working with is" for "you are" in this question.

HOW HELPFUL TO THE PUPILS AND THE SCHOOL DO YOU THINK IT WOULD BE IF AN AIDE* DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOB?**			
Very help-ful	Some-what help-ful	Some-what harm-ful	Very harm-ful	A C T I V I T I E S	Most of the time	Often	Seldom	Never
				53. Singing with a group of pupils.				
				54. Helping pupils get ready to put on an assembly program (such as making costumes, making scenery, listening to pupils rehearse).				
				55. Taking notes at meetings when asked.				
				56. Helping young children learn to use crayons, scissors, paste, and paint.				
				57. Attending meetings with teachers.				
				58. Spanking pupils for misbehavior.				
				59. Showing pupils how to clean up and put away materials.				
				60. Taking charge of the class when the teacher is sick for a considerable period of time, perhaps several days or a week.				
				61. Making arrangements for the use of equipment.				
				62. Helping pupils understand teacher's directions.				
				63. Checking supplies.				
				64. "Covering up" for children who cheat.				
				65. Playing a musical instrument for the pupils.				

*Or other auxiliary personnel such as assistant teacher.
**Professional personnel who check this sheet should substitute "the type of aide you are working with is" for "you are" in this question.

HOW HELPFUL TO THE PUPILS AND THE SCHOOL DO YOU THINK IT WOULD BE IF AN AIDE* DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOB?**			
Very help-ful	Some-what help-ful	Some-what harm-ful	Very harm-ful	A C T I V I T I E S	Most of the time	Often	Seldom	Never
				66. Collecting milk money, money for lunch tickets or other needs.				
				67. Helping pupils improve special skills (such as in gym, or sewing, or dancing.)				
				68. Helping pupils improve their manners.				
				69. Weighing and measuring a pupil.				
				70. Lending a pupil money when asked.				
				71. Doing errands and carrying messages.				
				72. Passing out and collecting pupils' materials.				
				73. Encouraging pupils to make the most of themselves.				
				74. Sorting mail.				
				75. Helping teacher maintain a completely quiet classroom.				
				76. Helping a pupil learn to do something new and perhaps a little more difficult than he thinks he can do.				
				77. Helping prepare and serve food.				
				78. Feeding classroom pets.				

*Or other auxiliary personnel such as assistant teacher.
**Professional personnel who check this sheet should substitute "the type of aide you are working with is" for "you are" in this question.

HOW HELPFUL TO THE PUPILS AND THE SCHOOL DO YOU THINK IT WOULD BE IF AN AIDE* DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOB?**			
Very help-ful	Some-what help-ful	Some-what harm-ful	Very harm-ful	A C T I V I T I E S	Most of the time	Often	Seldom	Never
				79. Taking charge of a class while the teacher has a rest period.				
				80. Writing down what a pupil is doing.				
				81. Keeping a record of how a group of pupils work or play together.				
				82. Watering plants.				
				83. Giving a pupil a chance to show he can do something well.				
				84. Encouraging pupils to help each other.				
				85. Getting the classroom ready for the next day.				
				86. Deciding who should stay after school.				
				87. Helping pupils learn to play together (such as teaching them to take turns, share toys and other materials)				
				88. Organizing outdoor activities for class.				
				89. Watching pupils from back of classroom to prevent unruly behavior.				
				90. Helping a pupil look up information in a book.				
				91. Checking on temperature, fresh air and lighting in the classroom.				

*Or other auxiliary personnel such as assistant teacher.
**Professional personnel who check this sheet should substitute "the type of aide you are working with is" for "you are" in this question.

HOW HELPFUL TO THE PUPILS AND THE SCHOOL DO YOU THINK IT WOULD BE IF AN AIDE* DID THIS?				(Please CHECK each item on both left and right hand sides, before checking next item.)	HOW OFTEN DO YOU BELIEVE YOU ARE LIKELY TO DO THIS ON THE JOE?**			
Very help-ful	Some-what help-ful	Some-what harm-ful	Very harm-ful	A C T I V I T I E S	Most of the time	Often	Seldom	Never
				92. Helping pupils pick out books in the library.				
				93. Helping a teacher make arrangements for a trip.				
				94. Taking responsibility for class for a few minutes when teacher is called away.				
				95. Giving the teacher information about a pupil which will help the teacher in working with him.				
				96. ***				
				97.				
				98.				
				99.				
				100.				
				101.				
				102.				
				103.				
				104.				

*Or other auxiliary personnel such as assistant teacher.

**Professional personnel who check this sheet should substitute "the type of aide you are working with is" for "you are" in this question.

***In blank spaces, fill in and check columns on left and right for the other activities you believe you would be likely to do, if any occur to you. Use other side of sheet, if necessary.

BANK STREET COLLEGE OF EDUCATION   A STUDY OF AUXILIARY PERSONNEL IN EDUCATION
103 East 125th Street
New York, New York 10035

Important Note: If you do not accept the way in which any item(s) has been
                   categorized, please send suggested change and its rationale
                   to Garda Bowman not later than August 10th.

PROPOSED WORK SHEET
CLUSTERING OF ITEMS ON ACTIVITY SHEETS FOR
DATA ANALYSIS

I. FUNCTIONS OF ASSISTANT TEACHERS (Supportive functions directly related to
    learning-teaching process).

    Item #   Activity

        1.   Playing games with pupils (such as rhyming games, guessing games,
             finger games).

        3.   Interesting a restless pupil in some available activities.

        6.   Helping pupils learn how to settle arguments without fighting.

       10.   Listening to pupils talk about themselves.

       12.   Talking with pupils about what they're doing when they are playing.

       13.   Listening to a pupil tell a story.

       21.   Talking quietly with a pupil who is upset.

       23.   Taking charge of a small group which is working on a special project
             while the teacher works with another group.

       25.   Taking a small group of pupils on a walk in the neighborhood.

       31.   Acting out stories with pupils.

       33.   Reading and telling stories to pupils.

       36.   Explaining school rules to pupils.

       41.   Helping a teacher plan trips with pupils.

       43.   Helping pupils learn how to use the bathroom.

       45.   Helping a pupil use a teaching machine.

       48.   Telling a pupil what happened when he was absent.

Item #	Activity
49.	Helping pupils move from one activity to another in the classroom.
53.	Singing with a group of pupils.
56.	Helping young children learn to use crayons, scissors, paste, and paint.
57.	Attending meetings with teachers.
59.	Showing pupils how to clean up and put away materials.
62.	Helping pupils understand teacher's directions.
65.	Playing a musical instrument for the pupils.
67.	Helping pupils improve special skills (such as in gym, or sewing, or dancing).
68.	Helping pupils improve their manners.
73.	Encouraging pupils to make the most of themselves.
76.	Helping a pupil learn to do something new and perhaps a little more difficult than he thinks he can do.
80.	Writing down what a pupil is doing.
81.	Keeping a record of how a group of pupils work or play together.
83.	Giving a pupil a chance to show he can do something well.
84.	Encouraging pupils to help each other.
87.	Helping pupils learn to play together (such as teaching them to take turns, share toys and other materials).
90.	Helping a pupil look up information in a book.
92.	Helping pupils pick out books in the library.
93.	Helping a teacher make arrangements for a trip.
95.	Giving the teacher information about a pupil which will help the teacher in working with him.

II. FUNCTIONS OF AIDES: CLERICAL, HOUSEKEEPING, TECHNICAL, MONITORIAL, ESCORTING
(General school functions not directly related to learning-teaching process).

Item #   Activity

4.   Preparing audio-visual materials such as charts at the request of the
     teacher.

5.   Typing.

14. Operating equipment such as movie projector, slide projector, tape
     recorder.

15. Checking daily on the health of pupils.

18. Giving first aid to a pupil.

19. Helping teachers take care of pupils in assembly.

22. Guarding doors of school.

26. Taking pupils to and from various places in school (such as lunchroom,
     nurse's office, principal's office, bathroom).

28. Preparing bulletin board displays.

29. Filing and cataloging materials.

34. Running a duplicating machine.

37. Keeping records, such as attendance and health records.

38. Taking groups of children on a trip.

40. Taking charge of pupils at various occasions, such as: during lunch
     period, in hallways and on bus.

44. Helping pupils learn proper use of tools and equipment.

50. Checking playground equipment for safety.

51. Taking home pupils who are sick or hurt.

54. Helping pupils get ready to put on an assembly program (such as
     making costumes, making scenery, listening to pupils rehearse).

55. Taking notes at meetings when asked.

61. Making arrangements for the use of equipment.

63. Checking supplies.

Item #	Activity

66. Collecting milk money, money for lunch tickets or other needs.

69. Weighing and measuring a pupil.

71. Doing errands and carrying messages.

72. Passing out and collecting pupils' materials.

74. Sorting mail.

77. Helping prepare and serve food.

78. Feeding classroom pets.

82. Watering plants.

85. Getting the classroom ready for the next day.

89. Watching pupils from back of classroom to prevent unruly behavior.

91. Checking on temperature, fresh air, and lighting in the classroom.

III. NEGATIVE ITEMS: TAKING OVER TEACHER'S ROLE, UNDERCUTTING TEACHER, OR HARMING CHILD DEVELOPMENT (Functions which should not be performed by auxiliary personnel).

Item #	Activity

2. Giving most attention to the pupils you know best (or the aide knows best).

7. Making exceptions to rules where you believe them to be wrong (or the aide believes them to be wrong).

8. Stopping pupils from fighting (rationale: teacher usually decides when this is necessary).

9. Comforting and supporting a pupil who feels he has been treated unfairly by the teacher.

11. Keeping pupils who talk slowly and hesitantly from wasting the class's time.

16. Putting away pupils' toys and materials.

17. Putting on and taking off all outdoor clothing of young children for them.

20. Washing a pupil's mouth out with soap when he swears.

Item #	Activity
24.	Finishing a slow pupil's work for him.
27.	Preparing the questions on tests for the pupils to answer.
30.	Deciding what pupils need to do in classroom.
32.	Planning the homework assignments for pupils.
35.	Deciding which pupils will need to work together in a reading group.
39.	Deciding what trips pupils will take during the term.
42.	Deciding what a pupil should study.
46.	Telling a misbehaving pupil what you really think of him.
47.	Seeing that a pupil eats all of his lunch.
52.	Teaching pupils a subject (such as history, chemistry, arithmetic, or reading).
58.	Spanking pupils for misbehavior.
60.	Taking charge of the class when the teacher is sick for a considerable period of time, perhaps several days or a week.
64.	"Covering up" for children who cheat.
70.	Lending a pupil money when asked.
75.	Helping teacher maintain a completely quiet classroom.
79.	Taking charge of a class while the teacher has a rest period.
86.	Deciding who should stay after school.
88.	Organizing outdoor activities for class.
94.	Taking responsibility for class for a few minutes when teacher is called away.

Detroit Public Schools

A STUDY OF AUXILIARY PERSONNEL IN EDUCATION

DAILY LESSON PLAN

_____   _____
      (Teacher's Name)   (Aide's Name)

_____   _____
(Subject)   (Grade Level)   (Date)

[/ /]   Regular Summer School

[/ /]   Cultural Enrichment, Extended   _____
          School, Great Cities   (Time of Class)

[/ /]   Head Start   _____
                                             (Room)   (School)

Teacher's General Plan	Approximate Time	Aide's Expected Activities

Detroit Public Schools

DAILY EVALUATION BY   TEACHER [/ /]   or   TEACHER'S AIDE [/ /]

NAME_____   SUBJECT_____

DATE_____

1. In general, how well were the Aide's Activities accomplished?

    _____

    _____

    _____

    _____

    _____

2. What were the __most effective__ activities of the Aide?

    _____

    _____

    _____

    Why? _____

    _____

3. What were the __least effective__ activities of the Aide?

    _____

    _____

    Why? _____

    _____

4. Looking back, can you think of other activities which the Aide could have
    done to make the lesson more effective?

    _____

    _____

    _____

    _____

5. __COMMENTS:__ _____

    _____

A STUDY OF AUXILIARY PERSONNEL IN EDUCATION

REPORT OF PROCESS OBSERVATION

NAME OF AIDE _____

TEACHER _____

SUBJECT _____   GRADE _____

SCHOOL _____   DATE _____

(See "Schedule for Process Observation")

OBSERVER _____

SCHEDULE FOR PROCESS OBSERVATION

A. Purpose of Observations

To determine at the time of observation the extent of:

1. Relevance of the process to the learning of tasks*
   by the auxiliary trainees.

2. Movement toward the attainment of this goal.

3. Relevance of the output of the instructor to the input of
   the students, according to the systems theory analysis "loop".

<p style="text-align:center">OUTPUT</p>

<p style="text-align:center">INSTRUCTOR   STUDENT</p>

<p style="text-align:center">INPUT</p>

B. Categories for Reporting

1. Environmental Description

   a. Seating arrangement (Chart)
   b. Number of people
   c. Who they are
   d. Type of room or outdoor setting
   e. Other pertinent data

2. Content of Instruction

   a. Information that is being given
   b. Skills that are being developed

3. Methods of Instruction

   a. Type of procedure employed (such as: lecture, discussion
      or role playing).

   b. Extent of interaction:

      - with teacher
      - without teacher
      - teacher-to-students in large groups
      - teacher-to-student, individually

4. Materials

   a. Which one is being used at time and how
   b. Printed materials available, such as: daily lesson plans,
      activities and lectures planned, list of audio-visual aids
      to be utilized.

5. Unique or Significant Features

- - - - - - - -
* as listed in Task Sheet or added to it by respondents

Detroit
Public
Schools

Research
Department
June, 1966

Locus of Control

Answer TRUE (T) or FALSE (F)

_____ 1. A person my age can change things that are happening in the world.

_____ 2. I have usually found that what is going to happen will happen no matter what I do.

_____ 3. If you don't get the right breaks, you can never get to be a leader.

_____ 4. It is not wise to plan too far ahead because most things turn out to be a matter of luck anyhow.

_____ 5. I don't get blamed or punished unless I deserve it.

_____ 6. Jars are bound to happen, no matter what we do.

_____ 7. Some people are just born to be popular, others aren't.

_____ 8. A great deal that happens to me is probably a matter of course.

_____ 9. Making friends is more than just a matter of being lucky and meeting the right people.

_____ 10. People are usually ruled by things that are beyond their control.

_____ 11. I can often change a person's mind by arguing with him.

_____ 12. Usually I feel that I can control the way people act with me.

_____ 13. Getting ahead in a job depends more on the boss than on what the employee can really do.

_____ 14. People are born the way they are and can't be changed.

_____ 15. I can usually do something about what is going to happen tomorrow.

_____ 16. A person like me can usually have his own way, if he tries.

_____ 17. Some teachers will give a student a poor grade no matter how hard he works.

_____ 18. I can't believe that chance or luck plays a very important part in my life.

_____ 19. When someone gets mad at me, I usually feel there is something I can do to remedy the problem.

_____20. It is silly to decide things by flipping a coin.

_____21. If another person was going to hit me, there would be little I could do about it.

_____22. Making a lot of money in life is mostly a matter of getting the right breaks.

_____23. There is plenty I can do about what is happening in the world today.

_____24. There is little use in worrying about a war, what will be, will be.

_____25. People usually do as they please no matter what I say.

_____26. If you try hard enough, you can make anyone like you.

_____27. I am the master of my fate.

_____28. If we try hard enough we can change the world.

_____29. You just can't figure out how to please some people.

_____30. There is not much use in trying to please people; they either like you or not.

_____31. When nice things happen to me, it is usually only good luck.

_____32. People like me can really change the world if we will only try.

_____33. Usually I feel that I can control the things that happen to me.

_____34. Being happy when you get married is more than just a gamble.

Tables of Raw Score Means, Standard Deviations, and Ranges for Participants in the Program to Train Teacher Aides.

KIT OF REFERENCE TESTS FOR COGNITIVE FACTORS

	Card Rotation S-1	Originality (Remote Conseruences) O-1	Sensitivity (Seeing Problems) Sep-2	Total
Mean	10.2	17.3	11.0	35.5
Standard Deviation	7.0	6.2	2.9	12.0
Range	0-28	8-38	3-15	20-71

GORDON PERSONAL PROFILE

	Ascendency	Responsibility	Emotional Stability	Sociability	Total
Mean	4.0	7.8	7.6	4.4	23.3
Standard Deviation	4.5	4.1	4.2	2.6	10.7
Range	(-8)-13	(-2)-16	(-1)-17	(-2)-12	(-9)-36

IOWA TESTS OF BASIC SKILLS, FORM 3

	Voc.	Read.	Spell.	Cap.	Punct.	Usage	Maps	Graphs	Ref. Math	Conc.	Prob.
Mean	34.4	37.3	32.8	24.7	24.5	19.5	11.2	11.3	26.5	12.2	12.5
S.D.	8.9	8.4	10.3	7.2	7.1	6.8	4.1	4.2	11.6	5.7	4.3
Range	19-47	13-65	7-46	10-38	8-38	9-31	2-23	3-22	7-47	3-25	5-24

ALLPORT-VERNON-LINDZEY STUDY OF VALUES

	Theoretical	Economic	Aesthetic	Social	Political	Religious
Mean	38.9	40.3	35.0	44.9	37.5	42.6
S.D.	5.6	4.4	5.7	5.8	5.1	6.7
Range	26-56	30-47	22-47	34-59	26-49	25-55

LOCUS OF CONTROL

Mean	Standard of Deviation	Range
23.6	3.8	25-33

HACKMAN-GAITHER VOCATIONAL INTEREST INVENTORY

	I+	II+	III+	IV+	V+	VI+	VII+	VIII+
Mean	13.0	11.2	20.8	23.3	21.6	5.3	17.3	6.1
S.D.	8.8	6.6	9.4	6.6	9.8	5.1	6.8	5.7
Range	1-35	1-27	4-40	8-35	1-40	0-21	4-32	0-21

	I-	II-	III-	IV-	V-	VI-	VII-	VIII-
Mean	17.4	19.4	11.3	8.5	9.3	28.0	12.6	27.3
S.D.	9.4	8.7	8.9	5.5	8.1	9.7	5.8	9.6
Range	0-36	1-38	0-32	0-23	0-36	7-40	2-36	3-39