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AUTHOR Walder, Leopold O.; And Others
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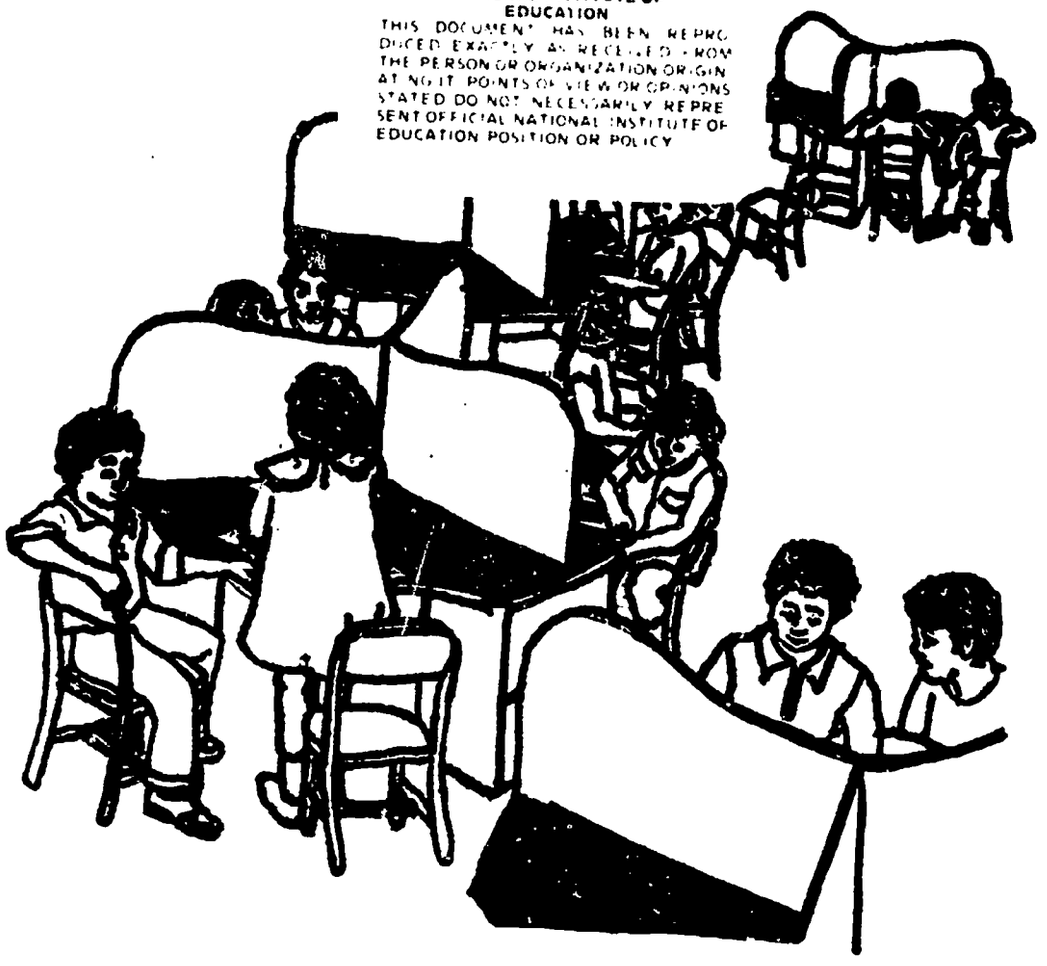
ABSTRACT

This final evaluation report of two ESEA Title III projects conducted by the Training Center for Open-Space Schools, District of Columbia, contains detailed descriptions of the projects' evaluation design, evaluation methods, results, conclusions, and recommendations. Continued on-site training, freedom of choice for teachers, and human relations training are emphasized in the recommendations. Tables of data and examples of data-gathering forms are appended. Some charts may reproduce poorly. (DN)

TRAINING CENTER FOR OPEN-SPACE SCHOOLS

ESEA TITLE III EVALUATION
FINAL REPORT



Office of Planning, Research and Evaluation
Division of Research and Evaluation

F I N A L E V A L U A T I O N R E P O R T

ESEA Title III Project:

The Training Center for Open-Space Schools

Public Schools of the District of Columbia

Follow up Evaluation of Cycles I through VI

and

F I N A L E V A L U A T I O N R E P O R T

ESEA Title III Project:

The Training Center for Open-Space Schools

Public Schools of the District of Columbia

Summer Cycle 1974 ("Modified Cycle VII")

October 1, 1974

Submitted to:

Dr. Mildred Cooper

Assistant Superintendent

Division of Planning, Research, and Evaluation

Public Schools of the District of Columbia

Prepared by:

Leopold O. Walder

Marcella G. Walder

Linda J. Garofalo

Behavior Service Consultants, Inc.
133 Centerway
Greenbelt, Maryland 20770

F I N A L E V A L U A T I O N R E P O R T

ESEA Title III Project:

The Training Center for Open-Space Schools

Public Schools of the District of Columbia

Follow up Evaluation of Cycles I through VI

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Submitted to:

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Public Schools of the District of Columbia

Cycle I	Ketcham Elementary School	Mar - Apr 1971
Cycle II	Weatherless Elementary School	Jun - Jul 1971
Cycle III	Shaed Open Space School	Jan - Mar 1972
Cycle IV	Langdon Elementary School	Jun - Jul 1972
Cycle IV	Webb Elementary School	Jun - Jul 1972
Cycle V	Carver Elementary School	Oct - Dec 1972
Cycle VI	Bruce-Monroe Elementary O.S. School	Jul - Aug 1973
Cycle VI	Malcolm X Elementary O.S. School	Jul - Aug 1973

Prepared by:

Leopold O. Walder

Marcella G. Walder

Linda J. Garofalo

Behavior Service Consultants, Inc.
133 Centerway
Greenbelt, Maryland 20770

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6. List of forms used to facilitate the instructional and parent involvement component of the open space programs.

7. Table of Tables

I. Abstract

A follow-up evaluation of Cycles I through VI of the Training Center for Open Space Schools has been conducted. The schools involved were Ketcham, Weatherless, Shaed, Langdon, Webb, Carver, Bruce-Monroe, and Malcolm X Elementary Schools. Review of documents, formal and informal interviews, questionnaires, and direct observations were the main methods of assessment of the correspondence between the objectives of the training cycles and their accomplishments. All the evidence, based on findings from data analyses, point to the objectives of the program having been achieved. Recommendations to continue most of the practices and to modify some are provided in this final evaluation report.

II. Purpose

The purpose of this report, submitted to the Office of Planning, Research, and Evaluation of the D. C. Public Schools, is to provide follow-up evaluation of the six cycles (Cycles I through VI) of the Training Center for Open Space Schools (TCOSS). A central issue of the evaluation is the assessment of the correspondence between the objectives of the TCOSS training cycles and their accomplishments. A second important issue of this evaluation is the question: Are there trends to open space training in the D. C. Public Schools? That is, as the training cycles progressed, were there modifications in the cycles (based on increased knowledge and experience) that led to improved educational practice.

III. Background

The six training cycles differed from one another in several ways. An important factor was the cycle number - that is, whether a cycle was the first open space training cycle run by the D.C. School System, such as that at Ketcham, or the most recent cycle at Bruce-Monroe and Malcolm X Schools. In the earlier cycles, the trainers were called in from the outside; in later cycles, teacher participants who had been through a previous training cycle served as trainers. Later training cycles were built upon preceding cycles; it would seem likely that as experience with open space grew, the training program would also change to meet newly recognized needs.

Some of the training cycles, such as Cycles II, IV and VI occurred during summer months, so that the teacher-participants from Weatherless, Langdon, Webb, Bruce-Monroe, and Malcolm X Schools were free from responsibilities for a full set of students as part of the regular school year. On the other hand, the training cycles at Ketcham (Cycle I), Shaed (Cycle III), and Carver (Cycle V), occurred during the school year.

The teacher-trainees who participated in the non-summer cycles had on-going responsibilities for a full complement of students. Thus, the teacher-student ratio varied for different cycles, which may have in some way changed the type of training experience and practice received by the participants.

Certain cycles, such as Cycle V at Carver School, continued beyond the formal end of the training cycle. Other cycles had a discrete beginning and a discreet ending. The daily time scheduling differed for various cycles. Most of the cycles which occurred during the summer months involved daily training for four or five weeks, whereas some cycles which took place during the school year were made up of one or two weeks of daily training activities, with the remainder of the training period spread over several weeks, on a one-day-a-week schedule.

The participants in Cycle V at Carver School were selected for training on the basis of being part of the existing teaching staff. Open space centers were to replace the self-contained classrooms, and if teachers chose to accept an assignment in the new facility, they were required to participate in the training cycle. This is different from the situation at Malcolm X and Shaed Schools; at both schools the personnel was a wholly new faculty. Teachers were recruited to staff these schools; they were carefully selected by means of a number of screening techniques; 1) They had to volunteer for the program, usually by writing a letter of application in response to city-wide publicity. 2) They filled out a questionnaire concerning their feelings about open space. In the case of Malcolm X, two additional selection techniques were used. 3) They were observed, by TCOSS staff, teaching in their self-contained classrooms and rated on their use of open space concepts in these classrooms. 4) They were interviewed by TCOSS staff. The majority of the teachers selected came either from schools in the metropolitan area or were recent college graduates.

The majority of the personnel of Bruce-Monroe was made up of those teachers from the former Bruce and Monroe Elementary Schools who chose to accept assignments in this new open space school rather than transfer to another school. Most of these teachers participated in Training Cycle VI prior to the opening of the new facility. However, there were some exceptions, that is, teachers from one of the former schools who went into open space without participating in a training cycle.

Physical Facilities. There were differences in the physical arrangements at the different schools. Ketcham and Wetherless each had one open space floor in a school largely composed of self-contained classrooms. Shaed, though not designed originally as an open space school, became one with construction changes introduced while it was being built. Langdon, Webb, and Carver had open space additions attached to

their otherwise self-contained classroom schools, Carver's addition ending up being the entire school, as the old section, emptied of students (except for one self-contained sixth grade class) was used for other programs. Bruce-Monroe and Malcolm X were completely designed and built for open space education.

IV. Evaluation Design

The design includes the development of hypotheses to be tested, the selection of the variables to be measured, determination of the quality of measurement, locating the sources of relevant data, processing of these data to obtain findings, and presenting the findings, conclusions and recommendations relevant to the follow-up evaluation of the six training cycles.

The basis for the development of the hypotheses to be examined and the selection of the variables to be measured came from several sources. One major source was the Program Descriptions of the training cycles of the Training Center for Open Space School (TCOSS) provided to us by the personnel of the D.C. Public Schools. (An example of such a program description is available as Attachment No. 1. on page 25 . Another major source came from discussions with the staff of TCOSS. Other sources of hypotheses and variables came from suggestions available to the evaluators from their reading about, discussions concerning, and observations of open space, as well as Dr. Walder's knowledge gained while evaluating previous cycles.

Each of the hypotheses may be examined by studying corresponding predictor and outcome variables which are assessed by the use of items in the questionnaire which had been designed to focus on a specific hypothesis. The four hypotheses, each with specific related predictor variables, and with examples of questions used in the paper and pencil questionnaire, are presented below. At the end of this section is the general outcome variable, with the specific questions, which is used as the common dependent variable for all of the predictor variables.

HYPOTHESIS I

There are certain characteristics of the program entitled "Training Center for Open Space Schools" which result over a period of time in increased effectiveness in teaching in open space facilities.

Predictor Variable: Characteristics of the training program measured by questions from paper and pencil questionnaire (see Attachment No. 3 on page 38.) for example:

No. 20 What of the following aspects (e.g. organization of space and equipment, grouping of participants, etc.) of the first cycle you participated in were underemphasized, overemphasized, or emphasized the correct amount?

No. 22 What aspects of the first training program you participated in were most useful in preparing you to work in an open space setting?

HYPOTHESIS II

The modification in the training program from the implementation of Training Cycle I to the completion of Training Cycle VI may have had an influence on the effectiveness of the training given during each of the particular training cycles.

Predictor Variable: Cycle number (ordinal position in a series of six training cycles). This assumes increasing knowledge concerning open education on the part of the Public Schools of the District of Columbia. Measured by question from the paper and pencil questionnaire.

No. 17 Which training cycle(s) were you a participant in?

HYPOTHESIS III

The positive effects of the training program (training cycles and follow-up training) will be measurable, with a variable time delay, by a follow-up evaluation.

Predictor Variable: Positive (after) effects of the training program. Measured by questions from paper and pencil questionnaire, for example:

No. 30 What was/is the most useful aspect of the follow-up training?

HYPOTHESIS IV

There are certain characteristics of the participants in the program which may be predictive of increased effectiveness of teaching in the open space setting.

Predictor Variable: Characteristics of participants. Measured by questions from paper and pencil questionnaire, for example:

No. 1 What are your previous experiences in open education prior to participation as trainee in an open space training cycle?

No. 10 How many children, counting yourself, were in the family you grew up in?

In addition to the above specific predictor variables which correspond to specific hypotheses, there are several outcome variables which are also related in general to the hypotheses. A major general outcome variable, which is also assessed by the use of specific questions in a paper and pencil questionnaire, is presented here.

A General Outcome Variable: Effectiveness of teaching in open space. Measured by questions from paper and pencil questionnaire, for example:

No. 31 What aspects of the open space program here at _____ School are well developed for use with your students?

V. Evaluation Methods

Several methods were used to evaluate the first six TCOSS training cycles: 1) open space literature and evaluation reports from previous cycles were read; 2) some of the participants were questioned by means of formal and informal individual interviews; and 3) most of the participants responded to a paper and pencil questionnaire; and 4) observations were made of participants interacting with space, furniture, equipment, materials, and each other. A positive peer nomination procedure was proposed; however, the majority of the participants were not willing to participate in peer nominations. More will be said of this in the section on measuring instruments below.

A. Measuring Instruments

The measuring instruments used in this follow-up evaluation of the first six TCOSS training cycles were: 1) face to face interview, 2) paper and pencil questionnaire, and 3) direct observation. A discussion of each, including description, purpose and administration procedure, is provided in the Interim Report. Copies of the face to face interview, paper and pencil questionnaire and observation forms are appended in this final report as Attachments 2, 3, and 4 (on pages 29,35, & 42) respectively.

Included in the Interim Report is a discussion of positive peer nomination as a possible measuring instrument. The participants overwhelmingly responded negatively to the use of peer nominations as a method of evaluation. Of the 118 participants polled, 90 withheld permission in their response to the survey (Question 38 of the paper and pencil questionnaire) requesting their participation. Peer nomination is seen by the evaluators as a very valuable method of evaluation, but one which needs additional groundwork and familiarity for acceptance by participants. Their refusal to cooperate could be viewed as an indication of strong group morale and cohesiveness. These qualities are seen as being important to the successful operation of an open space program.

The question of peer nominations had been raised at the beginning, in the first face to face interviews, because it was seen as a valuable, but potentially intrusive, method of evaluation that might need much groundwork for acceptance by participants. The question was raised again in the paper and pencil questionnaires. Ninety out of the 118 participants polled at the eight schools did not give a clearly affirmative response to the question. Some participants said they would be

nominators, but not be nominees. Others said they would participate as both. Some initialled their response, as requested, and some did not. Some said they did not want to participate as either nominator or nominee, and some said "yes" to one and "no" to the other. Some felt it was a way of telling about good work being done, and others felt that it was too sensitive an issue, and a potentially destructive procedure. Others felt that information gained this way may end up as part of an individual teacher's records. One teacher wrote "not a fair question" on her questionnaire.

The number of participants who said "yes" to being nominators and nominees and who signed their initials was not sufficient to give us a sample large enough to carry out the peer rating procedure. We interpreted this as the teachers telling us that the ratings should not be obtained.

B. Test-Retest Reliability of the Paper and Pencil Questionnaire

To determine test-retest reliability of the paper and pencil questionnaire, a small sample of participants was asked to retake the questionnaire at the end of the school year. Categories were noted in comparing the answers:

(1) Some questions should elicit the same answers as were given previously. An example of this is Question 6: How many years have you taught in Open Space?

(2) Some questions in reflecting the current changes in a participant's work may have different answers than were given previously. For example, Question 32A: How many times have you diagnosed for the children you are now working with?

(3) In some multiple response questions an occasional item might be deleted or an additional one added to the check list, though the main body of data should remain constant. An example of this is Question 22: What aspects of the first training program you participated in were most useful in preparing you to work in an open space setting?

The questionnaires and the retest questionnaires were compared without regard to the above three aspects, that is, every change in response was noted. This is a very high standard of agreement to achieve. It is comparable to demanding that a person express his thoughts with exactly the same words on two occasions months apart. On this stringent basis, there was a very high retest reliability in an average of 81.4% of each questionnaire. In general it was noted that teachers said the same thing on both occasions, however, shifts on the retest were to more socially desirable answers. This may have been a result of a feeling of "increased visibility" on the part of teachers retaking the questionnaire as a non-group type of activity.

The average numbers of identical responses per questionnaire was 30.8 out of a total of 38 answers (See Table 1 on page 73). The test-retest reliability of the paper and pencil questionnaire can therefore be determined to be 81.4%.

C. Interjudge Agreement of the Direct Observations

The first ratings that were made of teacher and child behaviors were made by all three observers at the same time and place in order to check for interjudge agreement in the observations. All three observers agreed that the entire group was "on task". There was further agreement in that during the observation period the teacher was observed to make one positive statement, and three instructional statements. Two observers noted two positive behaviors from two children; one observer noted four positive behaviors. So it can be seen that the rate of interjudge agreement on this first occasion was very high.

The second observations were made using two observers to check once more the degree of agreement in making the direct observation. In three consecutive observations made by the two observers, there was complete agreement in the three observations about the size of the group rated and there was fairly high agreement about teacher's behaviors that were observed. One observer counted six instructional comments, and the other counted five during a set period of time. On another occasion, a similar small difference occurred in counting a teacher's negative comments and positive comments.

In general, the level of interjudge agreement was deemed sufficiently high to allow the observers to make further observations individually.

VI. Results

We shall first make some general introductory remarks about the results, then proceed to present the results provided by each data gathering procedure, and finally discuss their relevance to each hypothesis.

At least one formal face to face interview was conducted at each school, except at Weatherless and Malcolm X where an informal interview was used. From the broad and varied information so obtained, a paper and pencil questionnaire was developed, tested and refined. It was then given to all available participants of the training cycles.

At least three site visits were made to each school, with four visits being made to two schools. These visits were opportunities to see what aspects of the open space program had been implemented, and to see in action some of the things we had talked about in interviews.

Questions concerning the use of peer nominations as a measuring instrument were included in formal and informal interviews and in the paper and pencil questionnaire. We determined, through such a survey, that the majority of the training cycle participants did not want to take part in peer nominations.

A. Face to Face Interview

Nine formal and seventeen informal face to face interviews were conducted. These interviews proved 1) useful as the basis for the development of a paper and pencil questionnaire and 2) a rich source of ideas and information about open space education, training cycles, the open space programs, and the participants.

The Principal, Open Space Coordinator, and several Teachers in each of the eight schools were interviewed either formally or by informal interviews. In five of the schools (Carver, Webb, Bruce-Monroe, Langdon and Shaed), the Open Space Coordinator was interviewed by both methods.

All of the participants appeared quite willing to speak frankly about their feelings, thoughts, and ideas concerning their particular school's program and open education in general.

Five of the nine teachers who were interviewed by means of a formal face to face interview felt that team process training was one of the most useful training program aspects. Two endorsements were given to scheduling, one to learning station development and two to individualizing. Each of these participants cited several training aspects as being extremely useful. Also mentioned were human relations seminars and the opportunity to play an active role in the workshop.

Participants' statements about the usefulness of the training they received in these areas were reinforced by a survey of the factors which they feel contribute to a successful open space program. The following factors seem to be held in common agreement by participants from all schools: 1) Good interpersonal relationships and the ease with which a team works together were seen as very important in facilitating open space teaching. 2) Adequate and appropriate materials and equipment are necessary. 3) The skill of the open space coordinator has a major effect on the operation of the program. 4) The participation of the school's administrative staff in the training program, as well as their continued interest in and cooperation with the program, is desirable.

Five of the nine participants who were formally interviewed said that they had not participated in the planning of the training cycles; three felt that they had helped to plan it in most respects; and one teacher felt that she had had only a small amount of input into the planning of her cycle. Six of the nine participants suggested that increased participation in the planning of cycles by prospective trainees would insure that the training program meet the specific needs of each group of trainees.

Community participation was seen by the participants as being very desirable. At present, most schools report that, while the amount of participation is not as great as they would like, it has been increasing.

Concern was expressed with respect to the availability of sufficient financial support for continuation of the open space approach to education in the Public Schools of the District of Columbia. The need for including on a regular basis open space teacher training in college of education curricula was discussed. Four of the nine teachers and administrators who were interviewed formally had had no experience in open education or open space, three had conducted an open classroom, and one had participated in a course given by a member of the TCOSS training staff. One of the coordinators had worked in open space prior to accepting her present position. All those interviewed felt that working in open space requires different curriculum emphasis than the traditional approach to education which is now being taught in colleges and universities. They see a need for courses appropriate to the open space approach to be made available to prospective teachers during their undergraduate training.

An issue which repeatedly was brought to the evaluators' attention was the need for changes in staffing patterns for open space schools. The use of teacher aides was suggested as one way of facilitating individualization of instruction.

Enthusiasm for the open space approach to learning was expressed by most of the participants interviewed. This enthusiasm was tempered by hesitancy to adopt it on a widespread basis until sufficient data had been gathered about its effectiveness. An alternative to a completely open space school was seen as very desirable. For example, the inclusion of one or two self-contained classrooms in an otherwise open space school would provide both students and teachers with educational choices to meet differing educational needs. Continuation of the open space approach, however, was strongly recommended by most of the participants interviewed.

B. Paper and Pencil Questionnaire

The responses to the paper and pencil questionnaire were processed by computer. The results of the analyses are presented in Tables 2 through 23 (page 34 through 95).

One hundred and eighteen teachers responded to the paper and pencil questionnaire. At least 70% of the open space faculty at each school was administered the paper and pencil questionnaire. Table 2 (page 34) gives the frequency distribution of the participants by school, and the percentage of the total sample at each school. Since the open space facilities at the schools vary in size, the number of participants from each school also varies. There is variability, from Ketcham, with 6 participants making up 5.1% of the sample of 118 participants, to Malcolm X, with 38 participants making up 32.2% of the sample.

Many of the participants (52.5%) had had no open space education experience prior to participation in an open space training cycle. Of those who indicated previous experiences in open education, the most frequent types of experiences are: visiting open space facilities, coursework in open space concepts, and open classroom teaching experience. It is interesting to note that 20% of the participants conducted open classrooms prior to their being in a training cycle. (See Table 3, on page 75, for more comprehensive statistics.)

Table 4, (page 76) presents the aspects of the training program considered most useful by all participants. Organization of space and equipment and team process were given a large number of endorsements; record keeping, indexing materials, and theory and practice of behavior modification were not considered as useful for preparation for work in an open space setting.

The ranking of aspects of the open space program considered by participants to be well developed (Table 6 on page 78) parallels the ranking of training cycle aspects endorsements (see Table 6, on page 78). Again, organization of space and equipment and team process are endorsed by the greatest number of participants. It is possible that the aspects of both the training cycle and the open space program considered useful and well developed may vary by training cycle (and by school); further analysis of the data for this was done and the results are presented in Tables17 and 19 (pages 89 and 91).

C. Direct Observation

We shall now discuss some of the findings from our direct observations. Observations were made of specific behaviors by means of standard time and event sampling techniques. Behaviors observed were: 1) student on-task behavior, 2) group size and composition, 3) student ability to work independently, 4) student academic and social performance, 5) student-teacher interactions. Four different groups were observed at each school. These groups were selected for observation on a non-systematic

basis. Observations were made of both academic and non-academic behaviors. The number and percent of students within each group who were on-task during a 10-second time interval were recorded. Within the on-task category, the observation design called for classification of students as working independently, working with teachers, or with peers. Attempts to classify on-task behavior into the above three categories were not successful. A reason for this might be that the flow of movement which characterizes open space makes necessary the use of finer grained observation techniques, which might include the use of instrumented equipment. Investigation of appropriate methods and equipment for observing in an open space school would prove to be an interesting methodological issue beyond the scope of this follow-up evaluation study.

The data collected for on-task behavior varies with respect to reliability. We are often dealing with relatively small numbers of subjects in each set of observations. The quality of the observation procedure, as well as the interjudge agreement, also varied for different groups Accordingly, Table 8 (page 80) presents the best quality observations of on-task academic and non-academic behavior for two groups per school. The criteria for the selection of these groups were: 1) the largest group observed at each school for each category of behavior and 2) groups for which the highest interjudge agreement was achieved.

For seven of the eight sample groups, 95% of the children were on-task in academic activities during the observation period. The one exception is a group composed of only four students. Because of the extremely small number of students within the group, one member of the group rated as "off-task" results in a high "off-task" group percentage which should not be considered representative of the behavior of the total student population. In two schools, observations were made of groups of children participating in non-academic activities (a song rehearsal for a school presentation and square dancing). In both cases, all of the children were enthusiastically "on-task". One of the charms of open space programs in general seems to be this success in the area of social skills development.

Teacher-student interaction was observed within time intervals, with behaviors rated in 10-second intervals. Only groups which contained at least one teacher and a minimum of three students were observed. The number of positive, negative, and instructional statements made by a teacher to the group of students was one of the behaviors rated. Verbal interaction proved to be a difficult behavior to rate, because when an evaluator was positioned close enough to a group to hear their verbal exchanges, this proximity frequently proved distracting and disrupting to members of the group. A longer time-sampling than was feasible in this evaluation would be necessary to allow the group to adapt to our presence. However, the evaluators were able to determine that the majority of the teacher comments made were instructional, with neither a positive or a negative emphasis. Positive reinforcement by teachers, in the form of words of praise and encouragement, was heard in every Learning Center visited.

The way in which furniture is arranged seems to have an effect on the openness of the Learning Center atmosphere. In some cases, the physical organization of furniture and materials facilitated flexibility of groupings and interactions, while in other cases, chairs, tables, and equipment were arranged very much like they might be in a traditional classroom setting. In several instances, blackboards, desks and chairs had been arranged to form an actual self-contained classroom in the middle of a Learning Center. It is not clear whether or not this was a response to a specific need for the use of traditional teaching methods and classroom organization, or whether the inadvertant structured arrangement of furniture encouraged such an approach. Wall arrangement is a factor which should be considered in the overall physical design of a Learning Center. If "mini-walls" are erected by strategic positioning of objects which serve as dividers, one risks a decrease in the exchange of ideas and resources. It follows that the division of an entire school into Learning Centers which are essentially separate and autonomous areas may result in some loss of flexibility of use of space.

An index of learning stations is maintained by the Open Space Coordinator and/or the teachers at every school. These files range from the beginning stages of development to fairly well-developed index procedures. Six of the schools maintain their index to stations on actual index cards, which are usually color coded by subject. One school uses a folder approach, with each station having a corresponding folder containing a description of the station. Similar information is maintained at all schools. This information includes purposes, tasks, skill level, subject area and location in Learning Center. Attachment 6.1 and 6.2 (on pages 60 and 61) are examples of the forms used for indexing at Bruce-Monroe and Shaed Schools.

The number and types of Learning Stations in each Center varies, although in all eight schools the emphasis seems to be on stations built around reading and math skills. A learning station built around reading skills was selected for examination at each of the schools. Each of the stations looked at had its purpose clearly defined. The number of tasks for each station ranged from two to six, with an average of three tasks per station. Several of the stations included keys to the tasks, which allowed a child to receive immediate feedback on his/her work.

A major concern of those who work in open space is the need for the development of procedures for individualization of student programs. This encompasses many areas, among them are diagnosing, prescribing, developing appropriate instructional curricula, and recording student achievement and progress. Each school (and sometimes teams and individual teachers within a school) has developed its own procedures to facilitate individualization.

Comprehensive checklists are used to record progress at different levels in areas of instruction. An excerpt from a reading skills checklist used at Bruce-Monroe School, is appended in the Attachment section

of this report as Attachment 6.3 (on page 62). A second method of individualizing frequently used is contracting, whereby a student contracts to complete a specific amount of work within a given time. The majority of the open space programs used contracts to individualize reading and math programs for students in the 4th, 5th, and 6th levels, and in several schools contracting was done by students of all age levels. Teachers frequently contract with a student when he/she is having a problem in a specific area. They look upon this as an excellent way of focusing on areas in which additional work is needed. Attachment number 6.4 (page 67) is a copy of a contract form used by students and teachers at Carver School. Teachers from Weatherless School find it useful to use prescription sheets which define work objectives for an individual child (see Attachment 6.5 on page 68).

The need for parent and community involvement was emphasized by teachers and administrators from all eight schools. Ketcham School uses Parent Observation Sheets (see Attachment 6.6 on page 69) to encourage parents' involvement in their child's school activities. Seminars have been planned for the purpose of providing parents and community members with the opportunity to learn about and provide feedback to the open space approach to education. Malcolm X held a three day seminar in March of 1974 which was designed to involve parents and the community in their school program. Attachment 6.7 (on page 70) is a copy of an annoucement which was distributed prior to the seminar. Several open space programs have developed brochures which describe their facility and are available to visitors to the Learning Centers. Webb School's brochure provides visitors with an introduction to the Learning Center by acquainting them with the physical layout of the Center, introducing the teachers working in the Learning Centers, and describing the visitor policy. (See Attachment 6.8 on page 71 for a one page excerpt from Webb's brochure.)

Overall planning is of primary importance to the success of an open space program. One aspect of planning involves the delineation of the roles and responsibilities of members of the open space staff. An excellent graphic depiction of the different roles of the teacher in open space, copied from a blackboard in a Teacher Planning area at Langdon, is included as Attachment 6.9 on page 72 .

D. Results by Hypothesis

The quantitative study of the four hypotheses is largely based upon the data from the paper and pencil questionnaire. Presentation and discussion of these results will be amplified and modified as appropriate by blending formal and informal information from other data gathering procedures.

Hypothesis 1. There are certain characteristics of the program entitled "Training Center for Open Space Schools" which result over a period of time in increased effectiveness in teaching in open space facilities.

We present cross tabulations of predictor questions 16A, 16B, 19A, 19B, and 20 with outcome questions. These interrelate reports of what was in the training program to the outcome measures.

Table 9 (page 81) presents the opinions of the total sample of 118 participants on the amount of emphasis given by the trainers to specific training aspects during the training cycle. The clearest response of the trainees is that very few of them say that aspects of training are emphasized "too much". There is literally very little overlap between the distribution of these percents and either the "not enough" or "just right" distributions.

Generally there is support for the total training program. The strongest endorsements are given to team (instructional and family) process, organization of space and equipment, and evaluation of the training program. These quantitative findings are supported by personal statements received from participants in this follow up survey as well as previously in the evaluation of the training cycles themselves. The seminars seem to get lower ratings. It may be that the groups are too large for the seminar participants to participate actively enough.

The strongest support for the importance of these data (i.e., the importance the teachers' opinions about the various aspects of the training program) will now be presented. The reader will see that there is a direct positive relation between approved aspects of training earlier and approved aspects of the training put into action later for students.

Tables 17 and 7, (pages 89 and 79) which present the aspects of the training program considered in retrospect to be most useful by participants of specific cycles and the total participant group from all cycles as well as no cycle, show that the aspects rated most useful are 1) team process, 2) organization of space and equipment, 3) learning station development and 4) scheduling. Aspects which were rated as least useful are record keeping, indexing and theory and practice of behavior modification.

An analysis relevant to Hypothesis 1 (the relation between aspects of the training program and the effectiveness of teaching in open space) was done by relating the satisfaction (or dissatisfaction) that teachers expressed about aspects of their first training cycle (as measured in Question 20) to their rating of the open space program in their current school (as measured in Question 31).

Question 20 asked "What of the following aspects of the first cycle you participated in were under-emphasized, over-emphasized, or emphasized the correct amount?" Each teacher could say of each of 16 aspects either "Not enough," "Just right," or "Too much". In this analysis three scores were derived from each teacher's response to Question 20. They were the number of aspects rated "Not enough", the number rated "Just right", and the number rated "Too much."

In turn each of these scores from Question 20 was related to a score derived from Question 31. Question 31 asked "What aspects of the Open-Space program here at (your) School are well developed for use with your students?" (Multiple response was permitted in selecting from a list of ter aspects of open space education.) A teacher could select anywhere from zero to ten aspects and the score used here was the number of aspects designated as well developed. A high score indicated an open space program with more aspects well developed and a low score indicated one with few aspects well developed.

Table 10 (page 82) gives the cross tabulation between Question 31 and the "not enough" score from Question 20; Table 11, (page 83) between Question 31 and the "just right"score; and Table 12, (page 84) between Question 31 and the "too much" score. These are 2 by 2 tables with each variable divided as close to the median as the distribution would allow. Chi Squares were performed. Only Table 11 (page 83) contains a significant Chi Square. This shows that there is a positive relation between the number of first training cycle aspects which were emphasized just right and the outcome measure of the number of well developed aspects of the teacher's current open space effort for the students. Table 10, (page 82) while not significant, shows the same type of trend. There is a negative relation between training aspects emphasized not enough and current excellence in the teacher's open space program. Table 12 (page 84) shows no trend other than the majority of the teachers stating that no training aspects were emphasized too much. This is a very positive request for no less (and perhaps more) training. This position seems supported by the general relation between excellence in training and excellence in later teaching.

Table 13 (page 85) shows no relation between how a person became a teacher trainee in a training cycle and the eventual quality of the teacher's open space program. On the other hand in Table 14 (page 86) one may see that there is a substantial relation between how a person became a teacher in an open space school and the quality of the teacher's open space program. Categories 1 and 2 of Question 16B differ in the extent to which a teacher volunteers to stay with a faculty which is become an open space faculty. The greater the choice, the better the program, our data suggest. Category 3, on the other hand, suggests that volunteering to join an open space faculty is not associated with a better open space program. It appears that both the group membership and the lack of coercion are relevant to a teacher being part of a good open space program.

Table 15 (page 87) shows no relation to quality of open space program and how much a teacher remembers helping in the planning of the training.

Hypothesis 2. This hypothesis states that the modification in the training program from the implementation of Cycle I to the completion of Cycle VI may have had an influence on the effectiveness of the training given during each of the particular training cycles. We present cross tabulations of predictor measures which relate the first training cycle number each teacher attended to outcome measures.

Table 16 (page 88) shows the relation between the number of the first cycle a teacher participated in and the number of teacher-made diagnostic tests the teacher reports giving. Inspection of the table, especially the 5+ column, shows that Cycle 3 at Shaed and Cycle 4 at Webb yielded teachers who reported giving the most teacher-made tests.

A single index of the average number of teacher-made tests given by teachers trained in each cycle was constructed by multiplying each percentage by the number at the head of each column and summing these products along each row. This index is designated in Table 16 (page 88) as the "weighted row sum", each percentage being weighted by the number of tests given. This index also shows that graduates of Cycle 3 at Shaed and Cycle 4 at Webb presented on the average the highest number of teacher-made diagnostic tests to their students.

In Table 17 (page 89) are presented aspects of the training cycle which were rated as most useful. This table presents these ratings as given by the participants from each of the training cycles as well as participants of no training cycle. One may ask of this table as well as of the two which follow whether different responses were obtained as a function of which cycle was attended. This is then relevant to Hypothesis 2. These tables have relevance to Hypothesis 1 and these data have been considered in different form already. In similar fashion we introduce for consideration Table 18 (page 90) which presents ratings, by cycle, of aspects of the training cycle which were rated as least useful and Table 19 (page 91) which presents ratings, by cycle, of aspects of the open space program which are well developed at their current school.

In Table 17 (page 89) by cycle, aspect 2 (team process), 1 (organization of space and equipment), 4 (learning station development), and 6 (scheduling) stand out rated as most useful. This is based upon the rightmost column in the table which gives equal weight to all cycle groups without regard to the size of the group.

In the same table the aspects least rated as useful are aspects 10 (other), 8 (record keeping), 7 (indexing), and 9 (theory and practice of behavior modification). The small size of many of the groups precludes doing meaningful statistical tests of the total table. By inspection one may see that there is a fair amount of agreement among different cycle groups. This suggests cycle number does not make a difference. It appears from these data that there was a basic uniformity among the several training cycles. Table 18 (page 90) shows the same results.

Statistical analyses of the data presented in Table 19 (page 91) show that there is a significant difference in the percentage of participants from each cycle who rate their current schools' program as well developed in the areas of diagnosing, prescribing, learning station development, individualization, and theory and practice of behavior modification. There is a fair amount of agreement in the rating given by participants in different cycles to their schools' program with respect to organization of space and equipment, team process, scheduling, indexing materials, and record keeping. Inspection of the table shows that a high percentage of participants in Cycle IV at Webb give positive ratings to their current schools program; a large percent of the participants in Cycle IV at Langdon and Cycle I at Ketcham also rate many of their current schools' program aspects as well developed.

There are quantitative and qualitative data which seems to support a multifactor process in the role played by "training cycle number".

The first factor stems from the fact that the TCOSS has developed not only its own competence but also the competence of a number of DC School staff people (largely trainee participants from earlier cycles) with respect to open space education and to the training for open space education. We can assert that the training for open space has improved in overall organization, in detail, and in general effectiveness from the early cycles to the later cycles.

Beyond the training itself are a set of other factors. One is the length of time a program has been in operation. New programs need shakedown time. Follow up training or consultation from TCOSS is a very important factor here. We sense that, to the extent that TCOSS has the resources, the shakedown period is shorter and the open space facility reaches a higher level of functioning. As the open space program improves such good activities occur as the increased use of teacher-made diagnostic tests.

Other nontraining factors which derive from the training program have to do with who in the current staff was trained in open space and who was not. Was the principal of the school trained? Are any of the teachers who are teaching in open space not themselves trained in open space? We found strong indication and sentiment regarding these aspects of training. Should a teacher receive such an assignment without training? In a word, each cycles effectiveness is greater as TCOSS grows more competent, as it has the resources to provide follow-up training and consultation, and as in the staff of the school there is a high saturation of administrative and instructional personnel who are trained in open space.

Another factor is the cohesiveness, cooperativeness, team process, etc., of the staff. This develops most efficiently in a training cycle. (Training during the summer with adequate support so teachers can focus on the task, with adequate follow-up in the school year would seem appropriate.)

A most important factor to mention here is financial support. The ongoing need for adequate staffing with enough coordinators, educational aides, materials and equipment is clear. Priority given to support for open space is crucial if the program is to continue to flourish.

Hypothesis 3. The positive effects of the training program (training cycles and follow-up training) will be measurable, with a variable time delay, by a follow-up evaluation.

We present cross tabulations of predictor Questions 28A, 28B, 29A, 29B, and 30 with outcome Question 31. These interrelate teacher reports about follow-up training and the outcome measure.

Table 20 (page 92) shows the relation between the number of aspects of follow-up training considered useful by a participant and the number of aspects of the open space program at the current school rated well developed by a teacher. Analysis of the data by statistical test shows a strong relationship between the number of follow-up training aspects considered useful and the number of aspects of the open space program rated as well developed. Inspection of the table reveals that as participants endorse a larger number of follow-up training aspects as being useful, they rate their current open space program as having more well developed aspects. This is seen in the more simplified presentation of the same data (this time, frequencies) in Table 21 (page 93).

Whereas the quality of follow-up training seems most relevant to the eventual use to which training is put, i.e., the teaching of the students, Questions 28 (A and B) and 29 (A and B) which deal with timing and frequency, and amount of follow-up training are not related to this outcome measure. The finding is that quality not quantity makes a difference.

Hypothesis 4. There are certain characteristics of the participants in the program which may be predictive of increased effectiveness of teaching in the open space setting.

We present cross tabulations of predictor Questions 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, and 15 with outcome Question 31. These interrelate reports of personal and demographic characteristics of participants and the outcome measure.

Table 22 (page 94) presents the aspects of the open space program rated well-developed in the teacher's current school by participants with different kinds of previous (prior to participation in a training cycle) education or experience in open education. This latter information comes from responses to Question 1. Inspection of the table shows that there is no systematic difference in the numbers of open space program aspects rated "well developed" by participants with no experience (category 1) and those with some experience (categories 2 through 6). No statistical significance was found in this table (22 on page 94).

There is also no significant difference in the number of open space program aspects endorsed by participants who have had a particular kind of experience as opposed to other types of experience. (These latter data are not presented here.)

There is, however, a relation between amount of experience, that is, the number of semesters of education/experience and the number of open space program aspects rated well developed by participants. (See Table 23 or page 95.) In general, participants with 0 to 2 semesters of training and/or experience in open space prior to participation in a training cycle tend to view more aspects of their respective open space programs as being well-developed. Those participants with zero semesters of training/experience are more likely to say that no aspect of their open space program is well developed than are participants with 1 or 2 semesters of experience. Participants who fall into the zero semesters of experience group and who also rate some aspects of the program well-developed are more likely to rate a larger number of aspects as well-developed than are participants with 1 to 2 semesters experience.

Amount of experience, not necessarily type, is a factor that should be considered when selecting participants for training or hiring people to work in open space. Perhaps counting semesters gives a better indication of amount of involvement in training and experience than counting programs.

There is an indication that grade level taught just before entering training and then teaching in open space is related to effectiveness of teaching in open space. The size of the sample is too small to see the nature of this trend clearly.

Table 24 (page 96) presents the number of school program aspects rated well developed in the teacher's current school with the grade level of the participants in the semester before the teacher's first training cycle. Inspection of the table shows that the majority of participants (97 of 118) responding to the paper and pencil questionnaire have had experience teaching Pre-Kindergarten, Kindergarten, 1st and 2nd grade level children. Statistical analyses (Chi Sqre) shows no significant difference in the number of program aspects rated well developed by participants with experience in teaching particular grades. This seems to lend general support to the finding that the type of previous training/education with which a participant enters a training cycle, other than structured open space training programs, is not related to the number of aspects of the open space program endorsed by the participant as being well-developed.

The only participant characteristics other than number of semesters of experience and/or training in open space prior to the first training cycle which even approaches significance in its relation to successful outcome of training is perhaps the number of siblings in the teacher's family during childhood. This does not reach the conventional level of significance ($p < .05$) and therefore the data are not presented here.

We list here the participant characteristics not related to the outcome measure:

Amount of teaching in self-contained classroom
Amount of teaching in open space classroom
Amount of teaching in the D. C. Schools
Current marital status
Number of children teacher is involved in raising
Age of teacher
Extended or nuclear family when teacher was growing up

The data about Hypothesis 4 (as well as Hypotheses 1, 2, and 3) seem quite clear in showing the relevance of quality training and supervised experience in open space in a training cycle or some other structured program. It shows the irrelevance of the range of personal demographic characteristics which we sampled in this study.

VII. Conclusions

A. Methodological

Peer ratings could not be done. It remains a method of choice but difficult to obtain.

Direct Observations was a highly reliable method (high interjudge agreement). It demonstrated that a very high percentage of the students in open space were on task and were working either independently or under the supervision of the teacher. The teacher gave a high percentage of instructional statements, a lower percentage of academic questioning. On the consequent side of the child's behivior, teachers tended to give more negatives than positives even though children appeared to be behaving in more positive than negative ways. A further, more detailed study using finer grain observation methods is needed. Ninety-five percent of the children in the groups sampled were observed to be on-task in academic activities.

The data from the face to face interview and the paper and pencil questionnaire were quite highly reliable and consistent. Thus test-retest reliability was high (81.4%) and consistent information was obtained from the two data gathering procedures. When a person is "singled out" for retesting, the discrepancies which do arise appear to be a shift toward slightly more socially desirable answers. This is interpreted as being a function of not being "invisible" within a group being tested as a group.

B. Hypothesis I (Characteristics of Training)

1. Aspects of training cycle given strongest positive endorsement, in order, are: team process, organization of space and equipment, learning station development, and scheduling.

2. A positive relationship was found between the number of training cycle aspects reported as receiving a "just right" emphasis and the number of well developed aspects of teacher's current program.

C. Hypothesis II (Training Cycle)

1. Later cycles benefited from experience gained in earlier cycles. Progressively more D. C. Schools' personnel were used as trainers.

2. The effects of a particular training cycle on a school's open space program is blurred by the non-uniform assignment of participants to different schools after training.

3. The participants in Cycle IV gave the highest average number of positive endorsements to usefulness of specific training cycle aspects.

4. The participants from Cycle III at Shaed and Cycle IV at Webb report giving the highest number of teacher-made diagnostic tests to their students.

5. There is a multi-factor process in the role played by the training cycle number. This results in no relationship between the ordinal position of the cycle and the outcome variable of quality of open space program.

D. Hypothesis III (Follow-Up Training)

1. Quality of training in open space before the training cycle, during the training cycle, and after the training cycle all are consistently relevant to subsequent quality of open space education for the student.

2. Trainees tend to ask for more training, not less.

E. Hypothesis IV (Characteristics of Participants)

1. The training cycle was the first experience in open education for over 50% of the participants.

2. Twenty percent of the participants conducted open classrooms prior to participation in a training cycle.

3. Participants would like to have courses pertaining to open education included in College of Education curricula.

4. Type of experience is not as important a factor as is the amount of experience.

5. Grade level taught prior to participation in the training cycle may be related to the outcome measure of effectiveness of the cycle.

6. No relation was found between how a person became a teacher trainee in a training cycle and the quality of the teacher's open space program.

7. There is a substantial relation between how a person became a teacher in an open space school and quality of the teacher's open space program.

8. Group membership and freedom of choice are relevant to a teacher being part of a good open space program.

9. Participation in the planning of a training cycle by the teacher is not related to eventual quality of the open space program.

10. Quality of training and of supervised experience in open space, either in a training cycle or in some other structured program, is relevant to eventual quality of open space programs.

F. General Conclusions

1. The personal demographic characteristics of the participants seem largely irrelevant. Only number of semesters in structured training and/or experience in open space appeared as relevant. This supports the data found in the study of Hypotheses 1 and 3, relating to characteristics of the training cycle and of the follow-up training.

   This general finding suggests that selection of participants can ignore the broad range of personal and demographic characteristics studied here. It cannot ignore the teacher's freedom of choice to go into open space along with his/her own group. Teachers who go into open space without free choice or without group membership are less likely to provide a good quality open space education to their students.

2. The particular training cycle seems to be fairly irrelevant to the outcome measure. It would appear that there was enough uniformity in the programs of TCOSS that one cycle was basically as effective as another. A multi-factor process seemed consistent with the findings. TCOSS is progressively giving better and more sophisticated training in open space. There are some post-training factors which combine to produce the end result. They included amount of time since the specific open space facility opened up, the number of staff who were trained in open space, the support in terms of staff and materials, etc.

   While it seems that training in the summer has advantages over that offered during the regular school year, no data seemed to support this nonquantitative impression.

3. Quality of training in open space before the training cycle, during the training cycle, and after the training cycle all are consistently relevent to subsequent quality of open space

education for the student. The trainees tended to ask for more training, not less. Specific aspects of the training were mentioned as being especially important. They included team process, organization of space and equipment, learning station development, and scheduling.

VIII. Recommendations

1. Training program should be in the summer; follow-up should be in in the fall. The training should be longer.

2. Teachers should be paid sufficiently for participating in training in the summer so that they are not forced to take on other jobs to support themselves during that period.

3. In the first year after the training cycle, an open space school should have a temporary support team, part of which would be withdrawn gradually as the need diminishes. Extra personnel is needed, particularly at the start. Different staffing patterns may be needed to maintain open space education programs once they are developed.

4. Schools should be designed to include both self-contained classrooms and open space facilities.

5. Teachers should be assigned to open space education facilities only if they have had relevant, quality, structured training and/or experience in open space. Such selection should include freedom of choice on the part of the teacher. Good group membership and relationships should be fostered. All teachers who teach in open space should be required to have participated in a training cycle and/or other structured forms of training before starting to teach in open space.

6. Teachers should be observed teaching before being invited to participate in a training cycle for open space.

7. Human relations are very important. A course in this should be taken by all teachers in open space facilities. This is because team process is a vital component of open space.

8. It is important to lay the groundwork for peer ratings to improve the quality of evaluation.

9. More detailed direct observations of teachers and students should be done in a finer grain study.

10. Support in the form of training and consultation, staffing, and materials and equipment is needed by open space education facilities.

11. To continue to improve the quality of the open space training we recommend the ongoing use of TCOSS and in-house teacher trainers. This should include the polling of the teacher trainees during the cycle and afterward. In-house trained and experienced people should have an active role in the planning and implementation of open space training programs.

12. The need for quality training and supervised experience in open space in a training cycle or in some other structured program cannot be emphasized too strongly. The data from the study of all four hypotheses clearly show the relevance of quality training to the eventual quality of open space education for the student. The continuation of an open space educational component within the D. C. School system requires ongoing support of a center or department whose mandate would be the continued development and implementation of training programs for open space, as well as the evaluation of these training cycles and existing open space programs in D. C. Schools.

D. C. Schools has built up and now has, an in house capability in training for open space education. The question is, will D. C. Schools use this capability or will it discard it? If the decision is made to discard the capability by disbanding the Training Center for Open Space Schools, then D. C. Schools will face lowered quality of education in open space and the need to bring in outsiders to do what is properly D. C. School's work. We understood that D. C. Schools are "going open space". The need for emphasis on program development will be increasing. We have found and presented herein evidence that the Training Center for Open Space Schools has been providing excellent training, and we assert that TCOSS should be continued as an ongoing part of the D. C. Schools.

13. Recommendations were made to provide in all schools both open space facilities and alternatives for some students and for some teachers and to continue in-house training of teachers in open space through the already established and functioning TCOSS.

14. The importance of a regular ongoing, open space training system for teachers new to the approach as well as for those now teaching in open space is very clear. As this approach is still relatively new, ongoing evaluation and observation are seen as important components to the program, necessary for feedback, accountability, adjustment, and long range planning.

IX. Summary

A follow-up evaluation of Cycles I though VI of the Training Center for Open Space Schools has been conducted. The schools involved are Ketcham, Weatherless, Shaed, Langdon, Webb, Carver, Bruce-Monroe, and Malcolm X Elementary Schools. Review of documents, formal and informal interviews, questionnaires, direct observations, and peer nominations were the main methods of assessment of the correspondence between the objectives of the training cycles and their accomplishments. Twenty-six participants were interviewed; one hundred eighteen responded to a questionnaire; direct observations were made in all eight schools. Peer nominations were not possible. Observations of teacher-student interactions and behaviors showed that 95% of the students in the groups sampled were found to be "on task" in academic activities.

X Attachment No. 1

AN EXAMPLE OF A PROGRAM DESCRIPTION

THIS PROGRAM DESCRIPTION CAME FROM TRAINING

CYCLE V

THE TRAINING CENTER FOR

OPEN-SPACE SCHOOLS AT

CARVER ELEMENTARY SCHOOL WHICH WAS HELD IN

THE FALL OF 1972

The first week of the cycle will be devoted to refining the concepts of Open Space, discussing the training schedule, organizing the facility and diagnosing and prescribing for students. The trainees will design learning stations and centers and participate in a human relations workshop under the direction of visiting consultants.

During the following weeks of the training cycle the participants will be involved in developing and implementing a functional Open-Space program.

OBJECTIVES

The primary objectives of this training cycle are:

- To introduce teachers and administrators to concepts of teaching and learning which are supported by an Open-Space setting.
- To provide practice in the skills necessary to respond to a full range of group and individual student needs.
- To plan and practice procedures for operating an effective Open-Space program.

ORGANIZATION

Throughout the training period it is crucial that everyone participate in planning the Open-Space education program and in adjusting elements of training. However, this is only possible within an overall framework for skills training, grouping, scheduling, and procedures which will ensure that all facets of operating in Open-Space are experienced as a whole and coherent process.

GROUPING

During the 4 weeks of training each participant will practice skills and responsibilities in two areas, as a member of two teams:

Instructional Team: Develops and adapts learning materials, instructs, observes, and evaluates the learning process in the Open-Space setting.

There will be members from each participating school on each instructional team.

Family Team: Diagnoses and prescribes for each child, develops the appropriate schedule, and social activities for each group of children.

Each participant will be a member of a family team with major responsibility to 25-30 children.

SEMINARS

All participants will meet together throughout the cycle with the training center staff and consultants.

The scope of training seminar activities includes:

- Presentation, discussions, and modification of procedures.
  - Organization of space and equipment
  - Indexing materials
  - Scheduling
  - Record keeping and evaluation of pupil progress
- Presentation and discussion of skills.
  - Diagnosing and prescribing
  - Curriculum development - (Learning stations and centers)
  - Management and behaviors in Open-Space
    - Behavior Modification
    - Discipline
  - Developing the team process
- Evaluation
  - Training Cycle
  - Course requirements

SKILLS DEVELOPMENT

During the training program, teachers and administrators will be asked to concentrate on developing skills in five areas: diagnosing and prescribing; developing curriculum (adapting materials); scheduling; observing; reinforcing positive behaviors; and developing a team process.

Diagnosing

During planning seminars on diagnosis, teachers will investigate various processes for gathering information on students which will help them to individualize instruction. Since it is assumed that a teacher provides more relevant learning experiences for those children she knows well, teachers will gather information on the students' academic, social, and emotional strengths and weaknesses. They will administer tests, assemble student files, and practice observing student behavior to find out more about the child as an individual learner.

Prescribing

As teachers develop a clear picture of their students, they will begin prescriptive teaching. They will assign a student to the materials, equipment, location, activity, teacher, and peer group most appropriate to his needs. The teacher, herself, will behave prescriptively by responding to each child in a manner that reinforces that child.

Curriculum Development (Developing Learning Stations and Centers)

When teachers have determined what types of materials and activities the children require, they will begin to adapt available curriculum materials and to design new materials. If a programmed text, for example, moves too rapidly for a particular child, the teacher will add supplementary games or materials to the child's prescription. Teacher and students will work together to create, make, and display the materials.

The basic "building block" will be the learning activity. This is a single skill and/or content oriented experience which the student accomplishes independently of the teacher, working alone or with a few others. The learning activities may be designed to teach a skill, apply a skill, or develop concepts in a content area.

Learning activities will be organized by teachers into learning centers, some of which stress subject matter such as Math or Science, while others focus on a special interest, such as space exploration.

Equal emphasis will be given to two aspects of curriculum development:

- Using/adapting existing materials, including new programs,

- Creating learning contexts that utilize raw materials, students' imagination, and neighborhood materials and situations with which the children are familiar.

Teachers will use technological media such as tape cassettes for adapting curriculum materials to an individualized approach. Also, as the training program proceeds, participants will be offered more options from which to choose program content. Individuals will be given time to develop materials that are particularly meaningful to their personal teaching styles.

Indexing

Teachers will also learn to index learning activities by skill area. This index will then be used as an important part of the prescriptive process.

Scheduling

As teachers begin to provide learning activities for individuals and/or small groups, they will utilize a variety of scheduling techniques to match space, personnel, and resources to the individual needs of students. Teachers will gain experience through scheduling activities which will enable them to provide all students with a greater number of choices, and more flexible learning patterns.

Management and Behaviors in Open Space

In order to assist teachers with "classroom" management, trainers will outline the theory behind behavior modification, emphasizing the identification of positive behaviors. Teachers will use a self-evaluation form as a personal guide to practicing positive reinforcement of student's appropriate behavior. Teachers will practice this skill in order to acquire consistency and to enable them to build a variety of positive responses with which they feel comfortable. Prior to practicing the skill, teachers will discuss the appropriate behaviors that should be reinforced. Positive behaviors between peers, both children and adults, in an Open-Space context will be emphasized.

XI Attachment #2

BEHAVIOR SERVICE CONSULTANTS, Inc.
Box 186, Greenbelt, Maryland 20770, USA

D.C. Schools Open Space Training Cycle

Face to Face Interview

Interviewer_____ Place_____

Participant_____ Date_____

Sex_____ Starting Time_____

We are outside evaluators for the D.C. Schools Division of Research, Planning & Evaluation. We were retained for a followup evaluation of all the training cycles for open space, Cycles I thru VI, which included your school. Our job is to try to find out what it is that might have been useful in the training program, what is relevant for your success as an open space teacher, what let to good use of open space. We are looking at the aspects of the training cycle that led to good educational practice. We also have some questions that have to do with what kind of a person as a trainee seems to work out for this particular method of teaching. Are there special attributes that open space teachers have in common? So, you see, some questions concern you as well as the training you received.

I. Participant (Emperical Hypothesis P)

P1. What are your previous experiences in open education prior to participation as trainee in a training cycle? (multiple response)

	Experiences	No. of Semesters
1. _____	No experience	_____
2. _____	Visited open space facilities in U.S.	_____
3. _____	Visited open space facilities in England	_____
4. _____	Coursework in open space concepts	_____
5. _____	Had open classroom	_____
6. _____	Other	_____

P2. What grade level did you teach the semester before you took part in the training cycle? (one response)

1. _____Pre-Kindergarten	4. ____2nd	7. ____5th
2. _____Kindergarten	5. ____3rd	8. ____6th
3. _____1st	6. ____4th	. ____Other (specify)

P3. What grade levels have you taught?

1. ____Pre-Kindergarten	4. ____2nd	7. ____5th
2. ____Kindergarten	5. ____3rd	8. ____6th
3. ____1st	6. ____4th	9. ____Other (specify)

P4. What grade level(s) are you teaching now? (one response)

1. ____Pre-Kindergarten	4. ____2nd	7. ____5th
2. ____Kindergarten	5. ____3rd	8. ____6th
3. ____1st	6. ____4th	9. ____Other (specify)

P5. What is your position in the family you grew up in? (one response)

1. _____Only child	3. _____Youngest	5. _____Other
2. _____Oldest	4. _____Middle	

P6. How Many children counting self were in the family you grew up in? (one response)

1. _____One	4. _____Four	7. _____More than six
2. _____Two	5. _____Five	
3. _____Three	6. _____Six	

P7. A. Did you grow up in an extended family? that is - did aunts, uncles, grandparents live with you? (multiple response)

1. _____Yes 2. _____No

B. If yes, who?

1. _____Grandmother	5. _____Uncle
2. _____Grandfather	6. _____Others
3. _____Grandparents	No. of others _____
4. _____Aunt	(specify)

P8. A. What is your current marital status?

1. _____Married	4. _____Widowed
2. _____Separated	5. _____Single
3. _____Divorced	

B. What is your position in the family you are currently in?

1. _____Spouse	3. _____Live alone
2. _____Spouse/parent	4. _____Other (specify)

C. How many children do you have?

1. _____None	3. ____Two	5. _____Four
2. _____One	4. ____Three	6. _____More than four

P.9 How old are you now? _____

P.10

College(s) attended	Major	Degree	Date Received

P11 How many years did you teach in self-contained classrooms? (one response)

1. ____ 1 - 5
2. ____ 6 -10
3. ____ 11 - 15
4. ____ 16 - 20
5. ____ 21 - 25
6. ____ More than 25 (specify)

P12 How many years did you teach in open classrooms?

P13 How many years have you taught in open space?(one response)

Years

1. ____One
2. ____Two
3. ____Three
4. ____Four
5. ____Five
6. ____More than 5 (specify)

P14 How many years have you taught in the D.C. Schools System? (one response)

Years

1. ____ 1 - 5
2. ____ 6 -10
3. ____ 11 - 15
4. ____ 16 - 20
5. ____ 21 - 25
6. ____ More than 25 (specify)

III Cycle - Empirical Hypothesis C

C1. Which training cycle were you a participant in?

Cycle	Place	Date
_____I	Ketcham	March - April 1971
_____II	Weatherless	June - July 1971
_____III	Shaed	January - March 1972
_____IV	Langdon, Webb	June - July 1972
_____V	Carver	October - December 1972
_____VI	Bruce Monroe Malcolm X	July - August 1972

_____ Did not participate in any cycle.

P15 How did you come to participate in the training cycle? (multiple response)

1. _____Saw circular, volunteered
2. _____Urged to participate by co-workers
3. _____Drafted (school changing to open space)
4. _____Other

P16 What was (were) your role(s) in the Open Space Training Cycle(s)? (multiple response)

1. _____Trainee - participant
2. _____Teacher - trainer
3. _____Other (specify)

P17 What is your current role at _____School? (specify)
(Multiple response)

1. _____Teacher
2. _____Special resource teacher
3. _____Teacher/team leader
4. _____Open Space coordinator
5. _____Principal
6. _____Administrative Asst.
7. _____Educational aide
8. _____Other

II. Training (Empirical Hypothesis T)

T1. What aspects of the training program were most useful in preparing you to work in an open space setting? (multiple response)
1. _____Active participation
2. _____Team concept
3. _____Learning station development
4. _____Individualizing
5. _____Simulation of real situation
6. _____Concepts of open space
7. _____Scheduling
8. _____Other

T2. What aspects of the training program were least useful in preparing you to work in an open space setting? (multiple response)
1. _____Everything useful 2. ____Other (specify things mentioned)

T3. How much did you participate in the planning of your training cycle? (one response)
1. _____Not at all
2. _____In few respects
3. _____In most respects
4. _____In all respects
5. _____Other

T4. Was the principal of your school involved in the training program? (one response)
1. _____Not at all
2. _____In a minor way (specify
3. _____In a major way (specify)
4. _____Fully involved

T5. What else would you like to tell me about the training cycle you participated in? Was it realistic? Adequate materials? What?

T6. Do you have any suggestions for improving the training program?

T7. A. After your initial training in open space, did you receive follow-up training?
1. _____Yes 2. _____No
B. When did this follow-up training start?
1. _____One month later
2. _____At start of semester
3. _____Other

T8. A. Are you receiving follow-up training now?
1. _____Yes 2. _____No
B. How often?
1. _____Once a week
2. _____Once every two weeks
3. _____Once a month
4. _____Once every two months
5. _____Once a semester
6. _____Twice a semester
7. _____Other

T9. What was/is the most useful aspect of the follow-up training? (multiple response)

1. _____Learning station development
2. _____Individualizing
3. _____Prescribing
4. _____Team process
5. _____Support
6. _____Scheduling
7. _____Other

IV. After Training (Empirical Hypothesis A)

A1. What changes - such as changes in attitude, skills or role - have you noticed in yourself or others since the training cycle?

A2. What aspects of the Open Space program here at _____ (specify) school are well-developed for use with your students?

1. _____Learning station
2. _____Team process
3. _____Indexing
4. _____Diagnosing
5. _____Individualizing
6. _____Scheduling
7. _____Other

A3. A. How many times have you diagnosed for the children you are now working with? (one response)

1. _____Once
2. _____Twice
3. _____Have not diagnosed
4. _____Other

B. How many tests did you use in yourdiagnosis? (one response)

1. _____One
2. _____Two
3. _____Three
4. _____Four
5. _____More than four

A4. (a) What percentage of your time is spent communicating with each of the following groups? (b) What is the average number of minutes you spend in a single interaction with each group?

	&	Minutes
Whole class	____	_____
Groups of 12 - 20	____	_____
Groups of 6 - 12	____	_____
Groups of 2 - 5	____	_____
Individuals	____	_____

A6. How much indexing is possible from day to day?

A7. What do you think of when I say "team"?

A8. How does team process work? How would the team handle a student's behavior problem? A learning problem?

V. Rating Peers

R1. Think of a specific person who is a good open space teacher. (You don't have to tell me his/her name.) What do you think aresome of the qualities that make this person a good open space teacher?

1. _____Is good team member
2. _____Flexible
3. _____Other (specify)

R2. Think of a good team. What do you think are some of the qualities that make this team function well?

1. _____Share responsibility, work
2. _____Communicate well
3. _____Trust among members
4. _____Flexibility in roles
5. _____Other (specify)

Is there anything you can think of that I should be asking that I haven't asked?

Ending Time _____

X Attachment #3

BEHAVIOR SERVICE CONSULTANTS, Inc.
Box 186, Greenbelt, Maryland 20770
Tel. (301) 474-2147

D.C. SCHOOLS OPEN SPACE TRAINING CYCLE

QUESTIONNAIRE

Dear Participants in D.C. Schools Open Space Training Program:

Below are a few questions about your experience, observations, and suggestions regarding the Training Center for Open Space Schools (TCOSS). Please use this opportunity to give us feedback on this program. Please feel free to write answers in addition to or instead of any of the responses requested in the format provided.

1. School _____ 3. Your Name _____
2. Date _____ 4. Sex _____

1. What are your previous experiences in open education prior to participation as trainee in an open space training cycle? (multiple response permitted)

	Experience	No. of Semesters
1____	No experience	
2____	Visited open space facilities in U.S.	____
3____	Visited open space facilities in England	____
4____	Coursework in open space concepts	____
5____	Had open classroom	____
6____	Taught in open space before participating in training	____
7____	Other (specify)	

_____

_____

2. What grade level did you teach the semester before you took part in the first training cycle in which you participated? (one response only please)

1____Pre-Kindergarten
2____Kindergarten
3____1st
4____2nd
5____3rd
6____4th
7____5th
8____6th
9____Other (specify)

_____

_____

3. What grade level(s) have you taught? (multiple response permitted)

1___Pre-Kindergarten
2___Kindergarten
3___1st
4___2nd
5___3rd
6___4th
7___5th
8___6th
9___Other (specify)

_____

_____

4. What level(s) are you teaching now? (multiple response permitted)

1___Pre-Kindergarten
2___Kindergarten
3___1st
4___2nd
5___3rd
6___4th
7___5th
8___6th
9___Other (specify)

_____

5. How many years did you teach in self-contained classrooms? (one response please)

Years

1___1-5
2___6-10
3___11-15
4___16-20
5___21-25
6___More than 25

6. How many years have you taught in open space?(one response)

Years

1___One
2___Two
3___Three
4___Four
5___Five
6___More than 5

7. How many years have you taught in the D.C. Public Schools? (one response)

1___1-5
2___6-10
3___11-15
4___16-20
5___21-25
6___More than 25 (specify)

8. What is your current role at _____School?
(specify)
(multiple response permitted)

1___Teacher
2___Special resource teacher
3___Teacher/team leader
4___Open Space coordinator
5___Principal
6___Administrative Assistant
7___Educational aide
8___Student Teacher
9___Other (specify)

_____

_____

9. All Colleges Attended | Major | Degree | Date degree received, if any

_____

_____

_____

_____

10. How many children, counting yourself were in the family you grew up in? (one response please)

1___One
2___Two
3___Three
4___Four
5___Five
6___Six
7___More than six

11. What is your position in the family you grew up in? (one response please)

1___Only child
2___Oldest
3___Youngest
4___Middle
5___Other

12. A. Did you grow up in an extended family; that is, did aunts, uncles, grandparents live with you?
1___Yes 2___No

B. If yes, who? (multiple response permitted)
1___Grandmother
2___Grandfather
3___Grandparents
4___Aunt
5___Uncle
6___Others
No. of others (specify) _____

13. What is your current marital status?
1___Single
2___Married
3___Separated
4___Divorced
5___Widowed
6___Other (specify) _____

14. How many children have you been involved in raising? (own children, nieces, nephews, foster children, etc.)
1___None
2___One
3___Two
4___Three
5___Four
6___More than four

15. How old are you?
1___20-24
2___25-29
3___30-34
4___35-39
5___40-44
6___45-49
7___50-54
8___55-59
9___60 and above

16A. How did you come to participate in your first training cycle?
1___Heard about it, volunteered
2___Urged to participate by co-workers
3___School changing to open space
4___Did not participate
5___Other (specify)

16B. How did you come to taech in an open space school?
1___Part of school going open space, volunteered
2___Entire school changed to open space
3___Asked for transfer to open space school
4___Other (specify)

17. Which training cycle(s) were you a participant in:

Cycle No.	Place	Dates
_____ I.	Ketcham	March - April 1971
_____ II.	Weatherless	June - July 1971
_____ III.	Shaed	January - March 1972
_____ IV.	Langdon	June - July 1972
_____ IV.	Webb	June - July 1972
_____ V.	Carver	October - December 1972
_____ VI.	Bruce-Monroe	July - August 1973
_____ VI.	Malcolm X	July - August 1973
_____ Did not participate in any cycle		

18. What was your role in the first cycle in which you participated?
Role
1___Trainee
2___Teacher - trainer
3___Other (specify)

19A. How much did you participate in the planning of your first training cycle? (one response please)
1___Not at all
2___In few respects
3___In most respects
4___In all respects
5___Other (specify)

19B. How much did you participate in the adjusting of your first training cycle? (one response please)
1___Not at all
2___In few respects
3___In most respects
4___In all respects
5___Other (specify)

20. What of the following aspects of the first cycle you participated in were under-emphasized, over-emphasized, or emphasized the correct amount?

Aspects of training Cycle	EMPHASIS			
	Not enough	Just right	Too Much	Comments or examples
1 Organization of space and equipment	____	____	____	____
2 Groupings of participants				
a-Instructional team	____	____	____	____
b-Family team	____	____	____	____
c-Seminars	____	____	____	____
d-Developing the team process	____	____	____	____
3 Skills training or development				
a-Diagnosing and prescribing	____	____	____	____
b-Curriculum development (learning activities, stations, and centers)	____	____	____	____
c-Individualization	____	____	____	____
d-Indexing materials	____	____	____	____
e-Scheduling	____	____	____	____
f-Record keeping and evaluation of pupil progress	____	____	____	____
g-Management and behaviors in open space	____	____	____	____
(1) Theory of behavior modification	____	____	____	____
(2) Use of behavior modification	____	____	____	____

h-Evaluation of the training program

4 Other (specify)_____

5 Not applicable _____

21. How did you like the scheduling of the training program in which you participated; that is, when scheduled, length of training, etc.

_____

_____

22. What aspects of the first training program you participated in were most useful in preparing you to work in an open space setting? (multiple response permitted)

1___organization of space & equip-
2___team process ment
3___diagnosing & prescribing
4___learning station development
5___individualization
6___scheduling
7___indexing materials
8___record keeping
9___theory & practice of behavior modification
10___other (specify)_____
11___Not applicable

23. What aspects of this training program were least useful in preparing you to work in open space setting? (multiple response permitted)

1___organization of space & equipment
2___team process
3___diagnosing & prescribing
4___learning station develop-
5___individualization ment
6___scheduling
7___indexing materials
8___record keeping
9___theory & practice of behavior modification
10___other (specify)
11___Not applicable

24. Was the principal of your school involved in this training program? (one response)

1___Not at all
2___In a minor way (specify)
3___In a major way (specify)
4___In every respect
5___Not applicable

25. What else would you like to tell me about the first training cycle you participated in? Was it realistic? adequate materials? what?

_____

_____

_____

26. Do you have any suggestions for improving the training program?

_____

_____

_____

_____

27. What changes--such as changes in attitude, skills or role--have you noticed in yourself or in others since the training cycle?

_____

_____

28A. After your initial training in open space, did you receive follow-up training?

1___Yes 3___Not applicable
2___No

29A. Are you receiving follow-up training now?

1___Yes
2___No

28B. When did this follow-up training start? (one response please)
1___One month later
2___At start of semester
3___Other

29B. How often?
1___Once a week
2___Once every two weeks
3___Once a month
4___Once every two months
5___Once a semester
6___Twice a semester
7___Other (specify)

30. What was/is the most useful aspect of the follow-up training? (multiple response permitted)
1___organization of space & equipment
2___team process
3___diagnosing & prescribing
4___learning station development
5___individualization
6___scheduling
7___indexing materials
8___record keeping
9___theory & practice of behavior modification
10___other (specify)_____

31. What aspects of the Open-Space program here at_____ (specify) School are well-developed for use with your students? (multiple response permitted)
1___organization of space & equipment
2___team process
3___diagnosing & prescribing
4___learning station development
5___individualization ment
6___scheduling
7___indexing materials
8___record keeping
9___theory & practice of behavior modification
10___other (specify)

32A. How many times have you diagnosed the children you are now working with? (one response)
1___Once
2___Twice
3___Have not diagnosed
4___Other

32B. How many teacher-made and/or standardized tests did you use in your diagnosis?

Teacher-made	Standardized
1___one	1___one
2___two	2___two
3___three	3___three
4___four	4___four
5___more than four	5___more than four

33A. On an average day, what percentage of your time is spent working with the following size groups of pupils:
1___whole class
2___groups of 12- 20
3___groups of 6- 12
4___groups of 2- 5
5___individuals
6___Other

33B. What is the average length of time spent in a single interaction with each size group?
1___whole class
2___groups of 12- 20
3___groups of 6- 12
4___groups of 2- 5
5___individuals
6___other

34. How much indexing is possible from day to day?

35. Think of a specific person who is a good open space teacher. What do you think are some of the qualities that make this person a good open space teacher?

36. Think of a specific group which is a good open space team. What do you think are some of the qualities that make this group a good open space team?

37. Is there anything else about the training cycle or the open space program here at (specify) _____ School, or about open space or education in general that you would like to mention?

38. We may be returning with a positive peer nomination procedure. We would like to know your feelings about participating in such positive peer ratings.

An example of the type of question we might ask is "who, in your opinion, is a good open space teacher?" For such a question each participant would nominate one or more people, but would not need to identify himself/herself as the nominator.

Would you please check the appropriate column? If yes, would you please initial?

	Yes	No	Initials
1 I am willing to participate as nominator.	___	___	_____
2 I am willing to participate as nominee.	___	___	_____

Thank you for your cooperation in this survey.

X Attachment #4

Follow Up Evaluation of Open Space Training Cycles, D. C. Schools

Site Visit and Direct Observation

School _____ Date From _____ To _____

BSC Staff: _____

School Personnel: _____

Questionnaire given to: _____

Self-Contained Teacher contact: _____

Indexing	
None ___ Beginning ___ Somewhat developed ___ Well developed	
If none, how could start?	
If some, how it got going?	
How often index?	
By Whom?	
When occurs?	
Example of Index	
Example of Learning Task	
Example of Learning Station 1. Number of Tasks 2. Types of Tasks 3. Frequency of Use 4. Which center in?	

Student Record Folders

None ___
Beginning ___
Somewhat developed ___
Well developed ___

If some, how did it get started?

If none, how could folders be developed?

Contents: Diagnoses, Prescriptions, student contracts

Diagnosing

How often?

When last done?

Individualized (any who get 0% or 100%) If so, what other tests are given?

From standardized tests ___(No.) Specify which:

Reading: Bank St., Ginn 360, Sheldon, Borg-Warner 80, SRA
ITA, Scott Foresman, Carousel Torchlight

Math: Houghton Mifflin Multi Text, Borg Warner 80

Science: AAAS, SCIS, ESS, Concepts in Science Labs

Language: Peabody Language Kits

Social Studies: Nystrom

Prescribing

How often?

When last done?

Are there a variety of levels available for each child's needs?

Group (Same Rx for several)

Individualizing
a. Prescriptions
b. Contracting
c. Record keeping

Behavior Service Consultants, Inc., Box 186, Greenbelt, Md. 20770

Date:_____ SCHOOL:_____

Observer:_____ Learning Center:_____

BEHAVIORS

Start Time: Min.	Sec.	Teacher: Said + / Said - / Said Instruct.	Child: ACAD +	Child: ACAD -	Child: Social +	Child: Social -	Count: Group 1 2 3
1	10						Size/Grp:
	20						# On task:
							W/TE:
	30						W/PEERS:
							INDEPENT:
	40						OTHER:
	50						# Off task:
COUNT							OTHER:
							1 2 3
2	10						Size/Grp:
	20						# ON TASK:
							W/TE:
	30						W/PEERS:
	40						INDEPENT:
							OTHER:
	50						# OFF TASK:
COUNT							OTHER:
							1 2 3
3	10						Size/Crp:
							# ON TASK:
	20						W/TE:
	30						W/PEERS:
	40						INDEPENT:
							OTHER:
	50						# OFF TASK:
COUNT							OTHER:

COMMENTS:

SITE VISIT AT _____

LEARNING ENVIRONMENT: SCHEDULING

Schedule for:

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY

Schedule for:

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY

Site Visit at _____

Learning Environment

Physical Properties

Percent of Building O.S.

Date O. S. Started

Layout of Learning Centers

Layout of Family Areas

Teacher Planning Areas

Material Storage

Wet Areas

Storage of Students' possessions

Furniture
- Chairs
- Tables
- Other

Materials
- Kind
- Amount
- Flexibility
- Location
- Mobility
- Frequency of Use

Learning Centers
- Math ___ No. of Stations
- Reading ___ No. of stations
- Language ___ No. of stations
- Science ___ No. of stations
- Social Studies ___ No. of stations

X. Attachment 5

SITE VISIT SCHEDULE

Date	School	Purpose
* Thurs., Feb. 14, 1974 2:00 P.M. - 4:00 P.M.	Webb	Meeting of Administrators Face to Face Interview Observations of Learning Centers
* Thurs., Feb. 21, 1974 2:30 P.M. - 3:45 P.M.	Bruce-Monroe	Meeting of Administrators Face to Face Interview Observation of Learning Centers
* Thurs., Feb. 28, 1974 1:40 P.M. - 3:20 P.M.	Langdon	Meeting of Administrators Face to Face Interview Observation of Learning Centers
* Friday, March 1, 1974 9:40 A.M. - 1:40 P.M.	Shaed	Meeting of Administrators Face to Face Interview Observation of Learning Centers
* Friday, March 8, 1974 9:40 A.M. - 11:30 A.M.	Bruce-Monroe	Face to Face Interview Observation of Learning Centers
* Thurs., March 14, 1974 2:00 P.M. - 3:30 P.M.	Weather-less	Meeting w/Administrators Observation of Learning Centers
* Thurs., March 28, 1974 1:00 P.M. - 2:00 P.M.	Carver	Meeting of Administrators Face to Face Interview
* Friday, March 29, 1974 10:00 A.M. - 11:25 A.M.	Ketcham	Meeting of Administrators Face to Face Interview Observation of Learning Centers
* Friday, March 29, 1974 1:00 P.M. - 2:25 P.M.	Malcolm X	Meeting of Administrators Observation of Learning Centers
* Wed., April 3, 1974 9:30 A.M. - 11:30 A.M.	Langdon	Administration of Paper and Pencil Questionnaire Observation of Learning Center
* Wed., April 3, 1974 2:00 P.M. - 3:00 P.M.	Shaed	Administration of Paper and Pencil Questionnaire
* Thurs., April 4, 1974 2:00 P.M. - 2:50 P.M.	Weather-less	Administration of Paper and Pencil Questionnaire
* Friday, April 5, 1974 9:15 - 10:40 A.M.	Webb	Administration of Paper and Pencil Questionnaire
* Friday, April 5, 1974 1:40 P.M. - 2:40 P.M.	Bruce-Monroe	Administration of Paper and Pencil Questionnaire
* Monday, April 8, 1974 1:10 P.M. - 2:35 P.M.	Langdon	Administration of Paper and Pencil Questionnaire

* Site visit reports included in interim report

	Date	School	Purpose
*	Monday, April 8, 1974 1:00 - 2:30 P.M.	Carver	Administration of Paper and Pencil Questionnaire Observation of Learning Center
*	Wed., April 10, 1974 9:45 A.M. - 11:00 A.M.	Ketcham	Administration of Paper and Pencil Questionnaire
*	Thurs., April 11, 1974 1:30 P.M. - 3:30 P.M.	Malcolm X	Administration of Paper and Pencil Questionnaire
*	Thurs., April 25, 1974 1:20 P.M. - 2:30 P.M.	Shaed	Administration of Paper and Pencil Questionnaire
	Tuesday, May 28, 1974 1:00 P.M. - 2:40 P.M.	Webb	Site Visit and Direct Observation
	Wednesday, May 29, 1974 9:10 A.M. - 11:40 A.M.	Bruce-Monroe	Site Visit and Direct Observation
	Thursday, May 30, 1974 9:00 A.M. - 12:00 M.	Carver	Site Visit and Direct Observation
	Thursday, May 30, 1974 1:15 P.M. - 2:50 P.M.	Weather-less	Site Visit and Direct Observation
	Friday, May 31, 1974 8:45 A.M. - 11:30 A.M.	Malcolm X	Site Visit and Direct Observation
	Friday, May 31, 1974 1:15 P.M. - 2:40 P.M.	Ketcham	Site Visit and Direct Observation
	Monday, June 3, 1974 9:20 A.M. - 11:50 A.M.	Shaed	Site Visit and Direct Observation
	Monday, June 3, 1974 (No visit made - school cancelled appointment)	Langdon	

Webb Elementary School Tuesday, May 28, 1974

This visit to Webb was to observe teacher-student behaviors, look at the files on indexing and students' folders, and try out various evaluation observation forms. We spoke briefly with the Principal, and then we went up to the Learning Center to talk with the Acting Open Space Coordinator (the Open Space Coordinator being in the hospital). She showed us the indexing files, which were started by the teachers and now were maintained by both the Acting Open Space Coordinator and the teachers. The indexing system seems to be fairly well developed. At our request, the Acting Open Space Coordinator selected a reading task, as an example from their files. We followed the task from the index through to the Learning Center where the corresponding Learning Station was set up. The station was "Let's Go Fishing";its purpose was to "have fun learning new words". It was geared to level 1-3, incorporated two different kinds of tasks, and involved the use of the media. It seems well thoughtout and appealing; we were told that it is a favorite of the children.

We talked about student record folders. They seem to be used primarily to hold a child's worksheets and papers, with his/her test results and reports kept in the individual teacher's desks. We asked about methods of individualizing used by the teachers and were showed individual prescription work folders geared for a variety of levels. Apparently each teacher knows his/her children and is able to tell the child which folder would be most appropriate for that child to use. Other areas discussed were diagnosing, reporting methods, and materials.

We observed some teacher-student behaviors, with each of the evaluators simultaneously counting and rating specific behaviors. We looked at student on-task behavior and teacher instructional behaviors, as well as group size and interaction.

The way in which the Learning Center is organized seems to permit a great deal of flexibility and mobility of equipment and furniture.

We coordinated what we had learned by looking at the files, with looking at what was going on out in the Center itself. We were told that some testing had been going on that morning, which had proven to be tiring and disruptive to the children. They were preparing for a musical show, and we watched a few minutes of their practicing before we terminated our visit. The evaluators were pleased with what they saw at Webb and regard it as a well put together open space environment.

Bruce-Monroe Elementary Open Space School Wednesday, May 29, 1974

The evaluators spoke at length with one of the teachers in Learning Center 202. She showed us a list of the various stations and activities in her family area. A child or teacher would use this list to locate and/or research a station. It is kept up to date by all the teachers, usually during teacher planning periods. There is a separate list for Reading, Math, etc. A child would first consult this list, and then go to his/her student folder. A list of stations is kept in the folder, and each child records his/her use of stations.

We later realized that all of the stations that were out on the floor were not listed on the activity sheets we had seen; there were more stations than those mentioned in the lists. Each of the stations had a key, so a child could check his own work. We were told that the standard procedure when a new station is built is that the teacher explains the skill involved and how to use the station to the children.

Diagnostic test results are kept by each teacher, typically at her desk. Each teacher usually maintains a work folder for each child in her family group, and in it are examples of the child's work and teacher evaluations.

The Initial Teaching Alphabet (ITA) is primarily used to teach reading and related skills. A teacher stated that although it involved a lot of work for the teachers, such as constant regrouping of children, it was worthwhile because the children enjoyed learning with it.

A Resource Box contained a wide range of tasks in various subjects and on various levels. It is used for individualizing and prescribing. Some of the folders were: "Rhyming and Audio Skills", "Diagnostic Texts", "Capital Letters", "Games", "Phonics", "Creative Writing", etc.

The Learning Centers are actually independent pods; they are octagonal in shape, with family area and instructional areas intermingled. There were three family areas in one of the Learning Centers. One of these was set up and ran very much like a self-contained classroom. This teacher had not been a participant in any training cycle. We were later told that this was an attempt to deal with some disciplinary problems which had arisen in that group.

One of the innovative ideas for positive reinforcement and also teacher-parent communications is a "Happy Gram". It is used to reward a child for good behavior or achievement, communicate progress to a parent, and/or request a conference. We were told that it had been recently sent home to the parents of a child who had been experiencing difficulties in adjusting to the open space and who had been able to remain in the Center without crying for two hours.

Carver Elementary School Thursday, May 30, 1974

The Assistant Principal took the evaluator to the Open Space Area to meet with the Open Space coordinator, who began by showing the evaluator a chart (located in the Teacher Preparation Area) which lists the reading stations. The idea for this chart grew out of a recent team meeting, at which time the team decided the types of stations needed to continue teaching new skills to the children. A file of index material related to the learning stations was well organized. The descriptions of the stations were very clear, copies of the work papers needed for each station were included.

Several types of folders are used by students and teachers. One type, maintained by each teacher for each of her children, contains progress sheets. The Coordinator said that the teacher checks these folders (for all children in her family group) about once a week and assigns work on a prescriptive basis to fill the needs of the children. The teacher tries to have a one-to-one conference with each child at least once a week.

Two first grade level groups, pre-kindergarten, and kindergarten were housed on another floor. The teacher-student ratio for the first grade level was 2:47. These two teachers were essentially team teaching in one part of the Learning Center. The rest of the open space was used by the pre-kindergarten and the kindergarten groups. There seemed to be very little interchange between the first grade level and the other two groups.

A large display, called "The Electric Company" was used as an attendance roster for the first grade level. If a child was present, he/she "turned on their light" by turning their paper light bulb to the bright, shiny side. It looked very appealing.

One of the learning stations in the pre-kindergarten level was called "Count with Me". It was essentially 12 boxes containing a specific number of tokens - the amount corresponded to the number on the box.

The evaluator spoke at length with one of the teachers, who teaches level four. The teacher explained her system of weekly reporting to parents, via a note, of each child's progress and current work level and load. She mentioned using contracting, both formally and informally, with children. A form of peer tutoring is encouraged by a procedure whereby this teacher trains three children (children taking turns") to be

"managers" for a month. Their job is to manage the learning station schedule. They help the children read the directions, check papers, and assist with the recording in each child's folder of work completed. Each child has one of these work folders, with a form to record the date, time, station number, activity, completion date, and teacher's comments.

This teacher expressed concern about the grouping and regrouping of children. She would like to learn an efficient method of prescribing and individualizing by continual regrouping of children according to skill acquisition.

Reading levels are from primer through sixth grade level. Each teacher seems to have quite a large span to cover. Bank Street and Sheldon are two of the reading programs used.

A self contained classroom teacher who had been trained for and who had worked for one year in open space was interviewed. She had taught a sixth grade level group in the Open Space Learning Center when Carver's Open Space Program first got started a year and a half ago. She felt that she could help the children attain higher skill levels in a self-contained setting, and she was concerned about their preparation for Junior High, so she asked to take the sixth grade in a self-contained classroom this year. Her classroom is in the old part of the school, which is the only portion of the original building which has not been turned over to other programs. There was little evidence of the time she spent in training and teaching in open space in the physical organization of her classroom. The biggest influence, she said, of the open space on what she is doing now with children is her use of peer tutoring and the amount of self choice opportunities given to children. One of the primary reasons why she did not find open space workable, she feels, was the lack of personnel. She felt that one could not have an effective program without adequate help and that open space programs require additional teachers and aides.

While the evaluator was in one of the Learning Centers, the children returned from recess. In general, they seemed to take a fairly long time to gather their materials, go to the areas they would be working in, and to begin work. However, once they began, they were able to work very well, either independently or in groups with a teacher.

On the way out, the evaluator spoke with the Assistant Principal and the Principal. They spoke about a grant for training of paraprofessionals for which a principal at one of the other schools was applying. If it came through, Carver could expect to get some kind of paraprofessional help next year. The importance of effective planning was discussed, and interest was expressed in Glebe School's computerized planning system. Each day the work of each child is analyzed, and a new program for the following day for that child is printed. The Assistant Principal sees this as one way of reducing the amount of work the teachers have, as well as an excellent means of individualization.

Weatherless Elementary School Thursday, May 30, 1974

The Open Space Coordinator met with the evaluator at the beginning of the visit. Various aspects of the open space program at Weatherless were discussed.

It seems that there was some concern with the level of reading reached last year by the first graders; the teachers felt that some children were not yet ready to go onto Level Two reading materials. A new reading program had been in operation, and it either was not as effective as they had hoped or more time was needed to adjust to it. The teacher hoped to remedy this situation this year by placing emphasis on more developmental work in math and reading and less emphasis on the open space program per se. The evaluator was told that, because of this, fewer stations were to be found on the floor.

The evaluator had hoped to look at the index file of tearning tasks and stations, but apparently it had been taken home by a teacher.

The Open Space Coordinator mentioned that the teachers tend to make stations together during their time at school. Each station seemed geared to multi-levels. Some math stations were "Open Space Shop Rite", and "Give a Hoot, Learn", and "Use Number Words". There were several art stations - one had to do with shapes.

Standardized diagnostic tests (the PRT and PMT) are usually given twice a school year. This school year they were given only in September. The Open Space Coordinator felt that they are excellent for pinpointing the strengths and weaknesses of a child in various subjects, but that then one must rely on teacher-made tests which helped to relate that lack to the materials available to fill the need. Teachers go over these tests together at meetings, and group children according to their skills level. This continuous grouping and regrouping is designed to facilitate individualization. (It may interfere with group feeling, however.)

The evaluator noted math and reading skills charts posted. Each named specific skills, and included each child's name and a space for a plus when a specific skill was mastered. A bar line for the number of skills mastered by each child was also included. Examples of skills listed on the math chart were sets and numbers, operations and properties, numeration and problem solving.

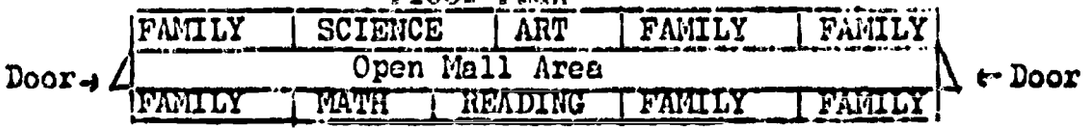
The teacher planning area was arranged in such a fashion as to facilitate communication. The desks were back to back in sort of a single oblong unit. This allowed teachers to work at their own desk, yet talk with one another.

There was a box called the "Sharing Box" in the reading center. It held extra work in various categories to which the children could help themselves.

The Open Space Coordinator mentioned that the school had been vandalized that morning. The vandalism took the form of someone or some few people coming in and turning furniture upside down, emptying boxes, etc.

The physical organization of the Learning Center was quite structured: family and instructional areas on both sides of the room, with the center of the room left open. The effect was that of an open mall, with small "shops" or areas on either side. There was a sign with the name in front of each area. Floor Plan:

Floor Plan



A group of children at one end of the Learning Center was having a talent show; the other groups were beginning to prepare for dismissal by clearing their tables and area of materials, books, etc. They were working very quietly and efficiently.

Malcolm X Elementary Open Space School Friday, May 31, 1974

A primary objective of this site visit was to observe student-teacher interaction in the learning centers. Another objective was to examine student folders, index files, and other record keeping procedures. The evaluator also planned to administer, or leave for self-administration, a paper and pencil questionnaire to three teachers who had taken a similar questionnaire during the early part of the evaluation period. The Principal had assisted the evaluator in the preselection of these teachers. This was designed as a test of the reliability of the paper and pencil questionnaire as a measuring instrument.

Each of the four levels was visited. On Level 300, about 25 children were in the process of taking a diagnostic test, the CTB McHill, for Math. They were seated away from the mainstream of activity. The evaluator observed several groups of students, all busily engaged in some type of reading activity. Ratings of student on-task behavior, teacher interactions, group size, etc. were made during this observation period. General impression was that of organization - in activities of children and teacher and in materials. Most of the children were on-task; several who were not seemed to have been distracted by the evaluator's presence.

The Open Space Coordinator showed the evaluator the indexing system. It was well developed for reading and math, and a good beginning in other subjects had been made. The system seemed to center around reading skills; plans for the development of multi-subject indexes called for a central indexing by reading skill. An example of an index was selected and followed through, out to the Learning Center. The index itself included a statement of purpose, an activity description, level and number of children geared to, and a location. This particular station, R12, was used in coordination with R14. Both involved phrase and

sentence development. All of the indexed reading stations seemed to be out on the floor and in use. There was much use of worksheets and cut and paste activities as part of the station tasks.

The Open Space Coordinator spoke of the use of student contracts which were based on learning stations and served as an evaluation method of progress. She told of the plans for revising the traditional report card - perhaps a non-graded type of feedback would be more appropriate to open space. She mentioned that at Malcolm X parent - teacher conferences were popular as a supplement to the traditional report card.

On level 200, the evaluator looked at the Library Media Center. The Open Space Coordinator for level 200 spoke about her hopes and plans to increase the use of media, and also to incorporate a fifteen minute a day "personal reading" period for everyone in the entire school. She was very enthusiastic about learning packets as a more viable approach to individualization than the current learning station idea.

The children and teachers from level 400 had spent the morning participating in role reversals; children became the teachers, and vice versa. Although the evaluator did not get to see this, it would seem to be a good learning experience and a lot of fun for all involved.

A questionnaire was left for a teacher who would complete it and mail it back, on three of the four levels visited.

Ketcham Elementary School Friday, May 31, 1974

The open space addition to Ketcham Elementary School was visited by a member of the evaluation team. The school Principal and the Open Space Coordinator were at hand to greet the evaluator. The Open Space Coordinator spent some time, as had been prearranged, showing the evaluator the index files, folders, etc. Since she had been expecting the evaluator, the Open Space Coordinator had already collected some materials for examination. There were two types of student record folders: one was a station folder which records station use and progress; a second was a folder which held a child's worksheets, contracts, and other papers. A third type of folder was sometimes used (depending on the preference of the individual teacher); it might be used to record grades of students, test results, etc.

When asked about contracting, the Open Space Coordinator proudly said that it was in use at Ketcham, even though contracting as a form of prescribing or individualizing had not been part of their training cycle (Cycle I). Students contracted in the areas of Reading, Spelling and Language, but did not yet do contracting in Math.

Only Reading and related skills have been indexed. Stations are listed by skills. If a worksheet is part of a station, a copy of it is attached to the index sheet. The Open Space Coordinator maintains the index files, and gives a master sheet which lists all the stations and their skills to each teacher.

The emphasis on reading skills was evident in the Learning Center. Most of the stations utilized reading skills. The Open Space Coordinator spoke about their plans to concentrate on Math skills for the following year.

There were few children and teachers in the Learning Center. Most of them had gone to the zoo for an end of the year outing. There were two groups of children, each with a family teacher, in the Center. It was apparently family time, and since it was Friday afternoon, the atmosphere was very informal. One group was chatting and popping corn; the other group was square dancing. One of the teachers was chastising her group of children about their loudness. She spoke quite negatively.

The evaluator watched the square dancing activity for a while. The children were interacting with one another in a very spontaneous happy way. One girl was showing two others a special step. Everyone looked as if they were having a good time. The teacher attached to this group left the children on their own for about ten minutes while she filled out a questionnaire the evaluator had brought. The children continued with their dancing and were able to handle themselves quite nicely during the teacher's absence.

By this time the second group had left the center to go downstairs for some sort of program, and it was nearing dismissal time. The evaluator spoke again briefly with the Open Space Coordinator and then left the Center.

A topic which had come up during the course of the visit was diagnosing. The evaluator left with the impression that the Open Space Coordinator said that only teacher-made diagnostic tests, including tests at the end of subject units, were used at Ketcham - that no standardized tests were used for diagnosing.

Shaed Open Space School Monday, June 3, 1974

Prior to going into a Learning Center, the evaluator and the Open Space Coordinator discussed the various aspects of the program at Shaed. The index files had been brought along by the Coordinator, and we began by discussing the indexing system. The Open Space Coordinator had prepared this master index box herself; it covered all of the stations built by the teachers. She mentioned that individual teachers have indexed their own stations, and that there is not as much "sharing" of stations as she would like to see. She feels, however, that the ability to share totally ideas and work is difficult to realize, and that she is very comfortable with the level of team process at Shaed.

The learning tasks and stations are color coded by subject. This same color code is used for time and activity schedules also.

There is no standard record folder used at Shaed, but they generally seem to contain examples of a child's work, some teacher evaluation and prescriptions. When asked about record keeping, the Open Space Coordinator enthusiastically spoke about profiles as a recording method which is stressed here. Apparently Shaed, as did other D. C. Schools, sent a team to the Instructional Development Institute to learn scientific problem solving methodology.

Reading and math profiles from the September 1974 test period were on display in the office, and various kinds of profile sheets were in evidence in the Learning Center. Diagnosing is done on a formal basis twice a year, in September and February. Teacher-made test packets are given frequently. Every teacher is required to give a profile packet every nine weeks.

Mention was made of the fact that teacher and student activities in June should not be taken as representative of the entire school year, since the special activities which take place at the culmination of the year interfere with the regular schedules. The ideal coordinator-student ratio was discussed; the Open Space Coordinator (who works with 600 children) feels that one coordinator per 300 children would be a realistic ratio in order to maintain organization throughout the whole school.

Schedules were posted in the main office, as well as in Learning Centers. They show a fair amount of grouping within the center by age, interest and skills level. For example, 11:00-11:45 A.M. is a time that is allotted for individualization of activity, based on prescriptions.

Although the main emphasis reflected by learning stations was on reading skills, there were also numerous math stations. Most of the emphasis was on the IMS for the teaching of Math.

Teacher-student interactions were observed in several of the centers. During one observation interval, it was determined that a teacher spoke in a positive fashion three times, made a negative comment once and made several instructional statements.

The need for an appropriate home reporting system was discussed. The teachers are very dissatisfied with the standard report card used throughout the D. C. public school system, and had been experimenting with various ideas for new report cards. However, they are of the understanding that a standard form must be used, and so have put in a request to the Board of Education for a new report card which is more appropriate for open space programs.

In the Learning Centers, there were many books - both fiction, nonfiction and instructional texts - in evidence. The evaluator noticed several children selecting books from one book display, and then returning with them to a quiet corner to read.

Langdon Elementary School Monday, June 3, 1974

A site visit to Langdon School was scheduled for June 3, 1974 to observe teacher-student behaviors, and to look at the indexing files and other records. On the morning of the visit, the Open Space Coordinator contacted the evaluators and cancelled the visit. The reason given was that it was too late in the school year to obtain a realistic picture of the open space environment and that a visit at this time would be too disruptive to the teachers and students. The evaluators regretted losing the opportunity to increase their knowledge of the Langdon Open Space facility.

Attachment 6

The following are examples of forms used to facilitate the instructional and parent involvement component of the Open Space Programs.

Attachments:

6.1 An example of a card used to index learning stations at Shaed Open Space School

6.2 An example of a learning station activity checklist used at Bruce Monroe Open Space School

6.3 An example of a reading skills check list used at Bruce Monroe Open Space School

6.4 An example of a contract form used at Carver School

6.5 An example of a math objective and progress sheet used at Weatherless School

6.6 An example of a Parent Observation Form used at Ketcham School

6.7 A copy of an announcement of a parent-community involvement seminar held at Malcolm X School

6.8 A copy of a one page excerpt from the Webb Open Space Visitors Brochure

6.9 An example of a chart at Langdon School describing the roles of the teacher at different levels.

Attachment 6.1 Shaed

SUBJECT_____L.C._____

ACTIVITY DESCRIPTION_____

HOW MANY CHILDREN CAN USE IT AT THE SAME TIME?_____

CODE NUMBER_____

INDEPENDENT_____TEACHER LED_____STUDENT LED_____

COMMENTS_____

_____

_____

Attachment 6.2 Bruce-Monroe

Reading Center Activity Sheet

Station	Skill	Activity	Level	No Limit	Remarks
R 1	Opposite	Just the Opposite (Work sheets - Game)	3-4	4	
R 2	Writing Cursive	C as in cursive (Work sheets)	3-4	3	
R 3	Blends	Hopping with Blends	3-4	3	
R 4	Singular Plural	Word Magic (Work sheets)	3-4	4	
R 5	Double Meaning	Two of Us (Work sheets)	3	2	
R 6	Syllables	Hip on Syllables (Work sheet - Game)	3-4	3	
R 7	Vowels	Long and Short Vowels	2-3	3	
R 8	Compound Words	Put it Together (Work sheet. Coke Top Game)	2-3	3	
R 9	Phonics	Work Games - (6 Games)	2-4	4	
R10	Compre-hension	SRA/Laboratory Kit, 1A	2-3	4	
R11	Phonics	Wanted Someone to Tutor (Work cards)	2-4	3	
R12	Compre-hension	The First Talking Alphabet	2-4	9	
R13	Compre-hension	System 80	3-4	1	
R14	Prefixes & Suffixes		3-4	2	
R15	Synonyms				
R16	Homonyms				

Attachment 6.3 Bruce-Monroe

CHECK LIST OF READING PROGRESS

SKILLS FOR READING READINESS LEVEL A

Name_____ Dates: 1st Report _____

2nd Report _____

A check mark (✓) in the box shows that your child:	Reports: 1st	2nd
1. Hears likenesses and differences in initial sounds	☐	☐
2. Identifies likenesses and differences in final sounds	☐	☐
3. Classifies objects according to color, size, shape and kind	☐	☐
4. Listens to and learns to retell nursery rhymes, short stories, and poems	☐	☐
5. Identifies common colors	☐	☐
6. Sees likenesses and differences in pictures	☐	☐
7. Sees likenesses and differences in words	☐	☐
8. Knows direction words	☐	☐
9. Recognizes likenesses and differences in letters	☐	☐
10. Follows simple and oral directions	☐	☐
11. Classifies pictures	☐	☐
12. Matches pictures and words	☐	☐
13. Identifies rhyming words	☐	☐
14. Expresses ideas in sentences	☐	☐
15. Uses correct forms of speech	☐	☐
16. Understands left to right eye movement and line to line reading	☐	☐
17. Arranges objects or pictures in sequential order	☐	☐
18. Interprets picture stories in sequence	☐	☐
19. Begins to recognize capital and small letters of the alphabet	☐	☐
20. Handles books correctly	☐	☐
21. Learns to use the picture dictionary to find pictures	☐	☐
22. Speaking so others can hear	☐	☐
23. Is able to adjust to a group	☐	☐
24. Can work independently	☐	☐
25. Is developing rhythm resulting in better motor control	☐	☐

Parent gets a copy

CHECKLIST OF READING PROGRESS
Skills for Chart Reading LEVEL B

Name_____ REPORT PERIOD____ DATE_____
REPORT PERIOD____ DATE_____

A check (✓) in the box shows that your child:

1. Continues to develop the ability to read charts and surprise stories		
2. Builds and maintains a sight vocabulary of words he has learned		
3. Uses phonetic skills to recognize old and new words		
4. Continues to recognize capital and small letters of the alphabet by name		
5. Finds pictures associated with the alphabet		
6. Reads silently before orally		
7. Begins to recognize compound words		
8. Builds words by adding endings s, ed, ing, to known words		
9. Recognizes configuration of words		
10. Uses context clues to learn new words		
11. Recognized long and short sentences		
12. Illustrates simple sentences		
13. Classifies words and ideas		
14. Follows simple written directions		
15. Recognizes and illustrates opposites		
16. Continues to read signs, labels, plans, bulletins, notices, and experience charts		
17. Listens to a story for enjoyment and recalls parts of it		
18. Tells an experience or story in sequence		
19. Understands punctuation marks, periods, question marks, and quotation marks for interpretation and expression		
20. Reads independently for pleasure and understanding		
21. Knows parts of a book: Title, Contents, Page Numbers		
22. Enjoys and uses classroom library and school library		
23. Begins to recognize compound words		

PROJECT D.U.E.

Learning Development Check List

Pre-Primer Level C

Name_____ Birth Date:_____

School_____ Room_____ Boy_____ Girl_____

CHECK EVERY ITEM BELOW EITHER PLUS (+) for yes; or minus (-) for no.

	Date: Mo/Yr			
18. Shows interest and enthusiasm toward learning to read				
19. Concentrates for short periods of time				
20. Listens to and follows oral directions				
21. Works with a group				
22. Completes independent work satisfactorily				
23. Understands oral language				
24. Is able to express his thoughts in a sentence				
25. Pronounces words correctly				
26. Perceives likenesses and differences through visual discrimination (size, shapes, colors, position, etc.				
27. Identifies likenesses and differences through auditory discrimination				
28. Forms a mental image of action in the story				
29. Retells a simple story in sequence				
30. Notes details, omissions, motions, and distances in pictures				
31. Understands the idea of reading from left to right				
32. Understands the idea of reading from top to bottom				
33. Understands the idea of reading from front to back				
34. Dictates sentences while the teacher writes them				
35. Is aware of words as symbols				
36. Understands sentences as units of thought				
37. Begins to understand that the period completes the unit of thought				
38. Understands that one or more sentences may be used to tell a story				
Total plus (+) responses				

PROJECT D.U.E.

Learning Development Check List

Primer Level D

Name_____Birth Date:_____

School_____Room_____Boy_____Girl_____

CHECK EVERY ITEM BELOW EITHER PLUS (+) for yes; or minus (-) for no.

	DATE: Mo/Yr			
39. Is enthusiastic about reading from a book				
40. Listens attentively				
41. Shows growth in attention span				
42. Is growing in ability to understand oral language				
43. Is growing ability to use oral language				
44. Scrutinizes words from left to right				
45. Recognizes words in either book type or manuscript and in capitalized or uncapitalized form				
46. Remembers word forms by associating meaning with the printed word				
47. Uses contextual clues in identifying words				
48. Has developed auditory perception in rhyming words and initial consonant sounds				
49. Projects himself into the story				
50. Is developing the ability to remember by associating ideas				
51. Is developing ability to form vivid sensory images				
Total plus (+) responses				

CHECK LIST OF READING PROGRESS

Skills for Level I - Second Reader Level 2

NAME_____ DATE_____

3rd Report

A check mark (✓) in the box shows that your child:

1. Recognizes and understands words of reader
2. Adds homonyms and opposites of words already learned
3. Uses the alphabet to locate words in the dictionary and in the telephone directory
4. Continues to alphabetize words by the first and second letter
5. Recognizes and compares the likenesses and differences of words that begin and end alike
6. Knows that each syllable contains a vowel
7. Continues to add prefixes and suffixes to root words
8. Recognizes words in which the y is changed to i before adding the ending
9. Recognizes words in which the final consonants are doubled before adding the ending (let-letting, tap-tapping)
10. Continues to realize the differences between the short and long sounds of vowels as (cat-cake, fish-five)
11. Begins to learn contractions in which one letter is left out as (it's, didn't, I'm)
12. Understands definitions and multiple word meanings
13. Reads orally to answer questions or prove or disprove an answer
14. Makes judgements and draws conclusions
15. Continues to read silently without lip movements, pointing or without losing place
16. Illustrates the main idea of a story
17. Plans and lists activities or events in sequence
18. Develops skills in locating information
19. Begins to pick out key words and sentences in a title, poem, story or article
20. Begins to read stories and poems for enjoyment at home and at school
21. Continues to give written book reports

Attachment 6.4 Carver

CONTRACT

I, _____ do hereby agree to complete the following tasks in a period of time so designated.

I will begin work on _____ and agree to have all work completed by _____.

_____
Signature

_____
Date

_____
Teacher

TASKS	Begin	Completed

Attachment 6.5 Weatherless

MATH OBJECTIVES FOR THE SECOND NINE WEEKS - Oct. 16, 197[illegible]

Pupil's Name_____ Grade_____

Teacher_____ Reading Level_____

Directions: Place a check (✓) beside each skill the child has mastered.

THE CHILD WILL BE ABLE TO:

_____ say, read, write the numbers 1-0.

_____ identify (match) sets that are equivalent.

_____ identify sets that are non-equivalent.

_____ identify the number property of a set containing ten or fewer numbers.

_____ compare the numbers (up to 50) using the expressions:
a. a number "is greater than" another number.
b. a number"is equal to" the same number.
c. a number "is less than"another number.

_____ name the number that comes before any number from 1 through 9.

_____ order the set of whole numbers through ten.

_____ write any numeral, zero to fifty.

_____ read the word names for numbers, zero through ten.

_____ build a set of ten.

_____ add 2 one-digit numbers using both the vertical and the horizontal forms.

_____ determine how many members must be joined to a given set to make a specified set.

_____ name addition facts with sums not exceeding ten.

_____ add 2 two-digit numbers with no regrouping.

Attachment 6.6 Ketcham

PARENT OBSERVATION SHEET

Use this sheet while observing your child. KEEP IT. Take it home and discuss your observations with your child.

1 = All of the time 2 = Most of the time 3 = Hardly ever

1.	My child seems happy.	1	2	3
2.	My child follows directions.	1	2	3
3.	My child shows respect for his/her classmates.	1	2	3
4.	My child follows school rules.	1	2	3
5.	My child takes an active part in the group.	1	2	3
6.	My child works well alone	1	2	3
7.	My child does his/her work neatly	1	2	3
8.	My child tries to do his/her best.	1	2	3
9.	My child asks for help when needed	1	2	3
10.	My child shows interest in school.	1	2	3

NOTES

Attachment 6.7 Malcolm X

MALCOLM X ELEMENTARY SCHOOL

March 21, 1974

Dear Parents and Community Members:

Many of you have expressed to us your desire to work more closely with the school and to find out more about the program. You will be able to do this next week during our Spring Seminar.

The PTA Executive Committee and the Staff of Malcolm X have made plans for a three-day seminar on Wednesday, Thursday and Friday, March 27-29. There will be workshops and small group activities for parents and teachers together. Limited activities will be planned for some upper grade students.

Please set aside as much time as possible to be with us beginning with open visits on Tuesday and the seminar on Wednesday, Thursday, and Friday.

School will be closed for most of the children, but we will try to plan some activities for them through our recreation staff.

WE NEED EVERY PARENT TO PARTICIPATE IN SOME PART OF THE PROGRAM. THIS IS YOUR SCHOOL, TOO. PLEASE COME OUT AND HELP PLAN HOW WE CAN MAKE IT WORK.

Yours truly,

Principal, Staff and
PTA Executive Committee of
Malcolm X Elementary School

Please return the blank below, and check one of the following.

_____ I will participate in the seminar and will attend on Wednesday, Thursday, and Friday.

_____ I will participate in the seminar but can only attend on
_____ Wednesday _____ Thursday _____ Friday.

Signed_____
Address_____
Phone_____

Attachment 6.8 Webb

Ruth K. Webb Elementary School
1375 Mt. Olivet Road N. E.
Washington, D. C.

To Our Visitors:

WELCOME to Webb School! We are pleased to have you visit our Learning Center, and hope that your visit with us is both informative and enjoyable. We shall try to answer your questions honestly and completely, but please understand that we opened our Open Space Facility in September, 1972. We expect changes as we gain experience.

A briefing on our organization, a walk through the center, and a slide presentation are three phases of the Learning Center Tour.

While visiting the centers and family areas, please remain on the periphery, unless you're invited to participate by a teacher. We ask you to refrain from engaging in conversation with teachers when they are busy with children. If you have any questions, please direct them to the coordinator.

We ask our visitors to sign our guest book and make comments. Your comments help us evaluate what we are doing.

Many thanks,

The Open Space Team

ATTACHMENT 6.9 LANGDON

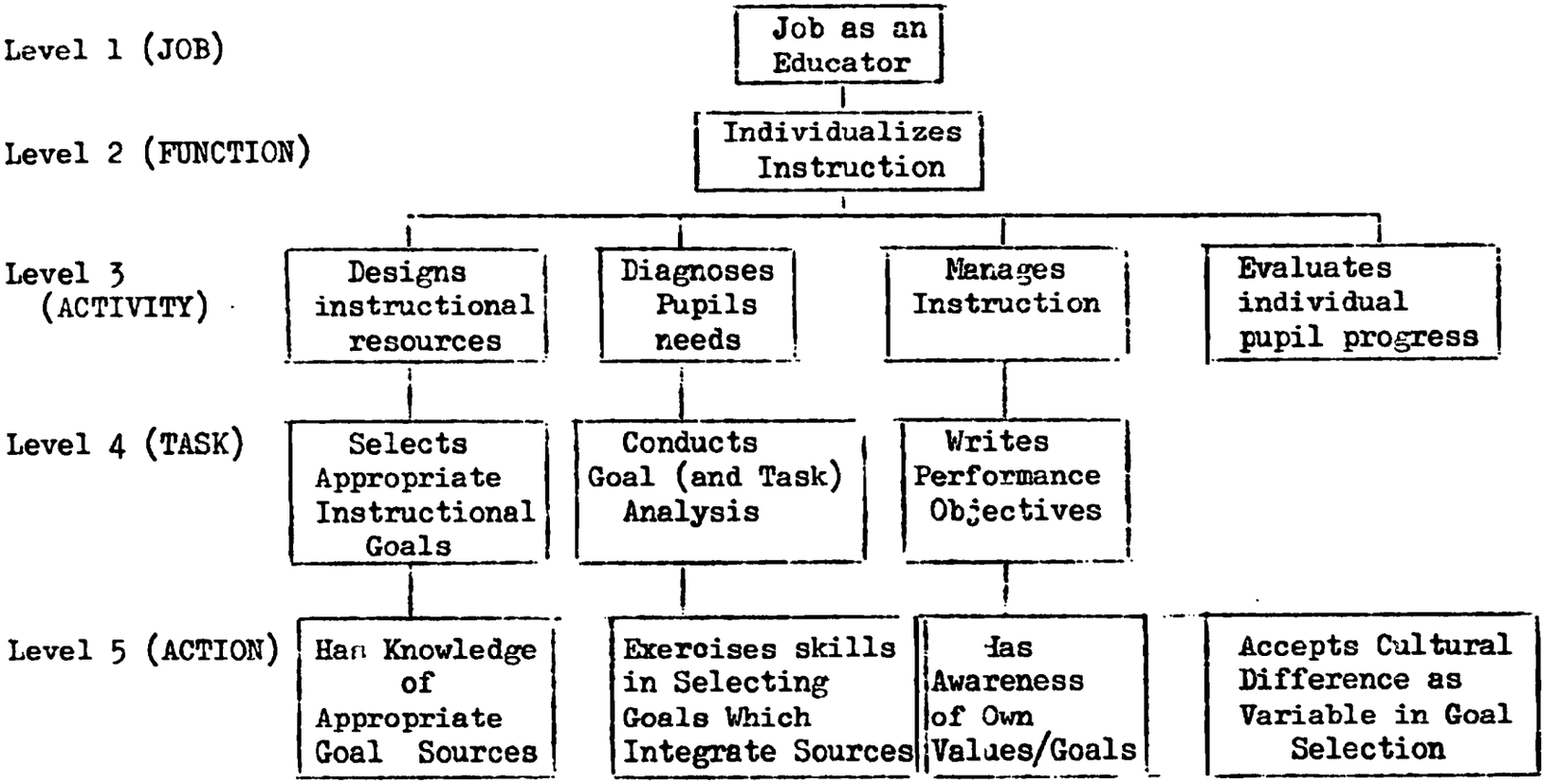


TABLE I

Test - Retest Reliability of the
Paper and Pencil Questionnaire

Participants to Whom Retest Questionnaire Was Administered	Identical Responses on Test and Retest Questionnaires per participant	
Participant	Number*	Percentage
1	33	86.8
2	33	86.8
3	33	86.8
4	32	84.2
5	32	84.2
6	30	79.9
7	28	73.6
8	26	68.4
Number of Participants 8	Average Number of Identical Responses 30.8	Average Percent of Identical Responses 81.4

* Total number of possible identical responses is 38.

TABLE 2

NUMBER OF TEACHERS IN SAMPLE AND PERCENT OF SAMPLE AT EACH SCHOOL

School	Frequency	Percent
Ketcham	6	5.1
Weatherless	7	5.9
Shaed	23	19.5
Langdon	12	10.2
Webb	7	5.9
Carver	12	10.2
Bruce-Monroe	13	11.0
Malcolm X	38	32.2
	118	100.0

TABLE 3

PREVIOUS EXPERIENCES IN OPEN EDUCATION

Question 1. What are your previous experiences in open education prior to participation as trainee in open space training cycle? (multiple response permitted)

			frequency	percent	No. of Semesters	frequency	percent
1.	No experience	No	62	52.5			
		Yes	56	47.5			
			118	100.0			
2.	Visited open space facilities in U. S.	No	79	66.9	0	113	95.8
		Yes	39	33.1	1	3	2.5
					2	2	1.7
			118	100.0		118	100.0
3.	Visited open space facilities in England	No	113	95.8	0	114	96.6
		Yes	5	4.2	1	4	3.4
			118	100.0		118	100.0
4.	Coursework in open space concepts	No	88	74.6	0	101	35.6
		Yes	30	25.4	1	11	9.3
					2	4	3.4
			118	100.0	3	1	0.8
					4	1	0.8
						118	99.9
5.	Had open classroom	No	91	77.1	0	111	94.1
		Yes	24	20.3	1	2	1.7
		Other	3	2.4	2	1	0.8
					4	2	1.7
			118	99.8	6	1	0.8
					8	1	0.8
						118	99.9
6.	Taught in open space before participating in training	No	114	96.6	0	113	95.8
		Yes	4	3.4	1	4	3.4
					2	1	0.8
						118	100.0
7.	Other	No	111	94.1	0	112	94.9
		Yes	7	5.9	1	5	4.2
					2	1	0.8
						118	99.9

TABLE 4

NUMBER AND PERCENT OF PARTICIPANTS RATING EACH ASPECT OF TRAINING PROGRAM "MOST USEFUL"

Question 22. What aspects of the first training program you participated in were most useful in preparing you to work in an open space setting? (multiple response permitted)

			frequency	percent
1	Organization of space & equipment	No	70	59.3
		Yes	48	40.7
			118	100.0
2	Team process	No	66	55.9
		Yes	52	44.1
			118	100.0
3	Diagnosing and prescribing	No	95	80.5
		Yes	23	19.5
			118	100.0
4	Learning station development	No	72	61.0
		Yes	46	39.0
			118	100.0
5	Individualization	No	95	80.5
		Yes	23	19.5
			118	100.0
6	Scheduling	No	81	68.6
		Yes	37	31.4
			118	100.0
7	Indexing materials	No	106	89.8
		Yes	12	10.2
			118	100.0
8	Record keeping	No	108	91.5
		Yes	10	8.5
			118	100.0
9	Theory and practice of behavior modification	No	105	89.0
		Yes	13	11.0
			118	100.0
10	Other	No	113	95.8
		Yes	5	4.2
			118	100.0

TABLE 5

NUMBER AND PERCENT OF PARTICIPANTS RATING EACH ASPECT OF OPEN SPACE PROGRAM AT OWN SCHOOL "WELL-DEVELOPED"

Question 31. What aspects of the Open Space program here at _____ (specify) School are well-developed for use with your students? (multiple response permitted)

			frequency	percent
1	Organization of space and equipment	No	63	53.4
		Yes	55	46.6
			118	100.0
2	Team process	No	57	48.3
		Yes	61	51.7
			118	100.0
3	Diagnosing and prescribing	No	83	70.9
		Yes	34	29.1
			117	100.0
4	Learning station development	No	61	51.7
		Yes	57	48.3
			118	100.0
5	Individualization	No	78	66.1
		Yes	40	33.9
			118	100.0
6	Scheduling	No	79	66.9
		Yes	39	33.1
			118	100.0
7	Indexing materials	No	96	81.4
		Yes	22	18.6
			118	100.0
8	Record keeping	No	97	82.2
		Yes	21	17.8
			118	100.0
9	Theory and practice of behavior modification	No	99	83.9
		Yes	18	15.3
		Invalid Response	1	.8
			118	100.0
10	Other	No	111	94.1
		Yes	7	5.9
			118	100.0

TABLE 6

PERCENT OF TEACHERS CHOOSING ASPECTS OF PROGRAM AS "WELL DEVELOPED" IN SCHOOL

Question 31. What aspects of the Open Space program here at _____ (specify) School are well-developed for use with your students? (multiple response permitted)

	Aspects	Percent
2	Team process	51.7
4	Learning station development	48.3
1	Organization of space and equipment	46.6
5	Individualization	33.9
6	Scheduling	33.1
3	Diagnosing and prescribing	29.1
7	Indexing materials	18.6
8	Record keeping	17.8
9	Theory and practice of behavior modification	15.3
10	Other	5.9

TABLE 7

PERCENT OF TEACHERS CHOOSING ASPECTS OF TRAINING CYCLE AS "MOST USEFUL"

Question 22: What aspects of the first training program you participated in were most useful in preparing you to work in an open space setting? (multiple response permitted)

	Aspects	Percents
2	Team process	44.1
1	Organization of space and equipment	40.7
4	Learning station development	39.0
6	Scheduling	31.4
5	Individualization	19.5
3	Diagnosing and prescribing	19.5
9	Theory and practice of behavior modification	11.0
7	Indexing materials	10.2
8	Record keeping	8.5
10	Other	4.2

TABLE 8

NUMBER AND PERCENT OF STUDENTS ON-TASK IN ACADEMIC AND NON-ACADEMIC ACTIVITIES

	ACADEMIC ACTIVITIES					NON-ACADEMIC (Such as Rehearsal for Social Program, Dancing, etc.)				
SCHOOL	SIZE OF GROUP	ON TASK # of Students	ON TASK % of Group	OFF TASK # of Students	OFF TASK % of Group	SIZE OF GROUP	ON TASK # of Students	ON TASK % of Group	OFF TASK # of Students	OFF TASK % of Grcup
Ketcham	4	3	.75	1	.25	21	21	100.0	0	0.0
Weatherless	11	11	100.0	0	0.0	N/A	N/A	N/A	N/A	N/A
Shaed	9	9	100.0	0	0.0	N/A	N/A	N/A	N/A	N/A
Langdon	29	28	.96	1	.04	N/A	N/A	N/A	N/A	N/A
Webb	N/A	N/A	N/A	N/A	N/A	60(e)	60(e)	100.0	0	0.0
Carver	20	19	.95	1	.05	N/A	N/A	N/A	N/A	N/A
Bruce-Monroe	8	8	100.0	0	0.0	N/A	N/A	N/A	N/A	N/A
Malcolm X	10	10	100.0	0	0.0	N/A	N/A	N/A	N/A	N/A

e = estimated

N/A = Data not available. Since the primary objective of the evaluators was to observe students engaged in academic behaviors, more data was collected on academic activities than on non-academic activities.

* = Rated by event sampling. The number of students on task during a 60 second time interval.

Table 9

OPINIONS OF PARTICIPANTS REGARDING EMPHASIS GIVEN IN TRAINING TO SPECIFIC ASPECTS OF OPEN SPACE

20. What of the following aspects of the first cycle you participated in were underemphasized, over-emphasized, or emphasized the correct amount?

Aspects of Training Cycle	FREQUENCY (PERCENTAGE OF TOTAL) EMPHASIS					TOTALS
	Not enough	Just right	Too much	Comments or examples	No Response	(ROW SUMS)
1 Organization of space and equipment	19(16.1)	55(46.6)	4(3.4)	0(0)	40(33.9)	118(100.0)
2 Groupings of participants						
a-Instructional team	23(19.5)	55(46.6)	1(0.8)	1(0.8)	38(32.2)	118(99.1)
b-Family team	19(16.1)	56(47.5)	2(1.7)	1(0.8)	40(33.9)	118(100.0)
c-Seminars	19(16.1)	42(35.6)	15(12.7)	1(0.8)	41(34.7)	118(99.9)
d-Developing the team process	25(21.2)	47(39.8)	3(2.5)	0(0)	43(36.4)	118(99.9)
3 Skills training or development						
a-Diagnosing and prescribing	41(34.7)	39(33.1)	1(0.8)	0(0)	37(31.3)	118(99.9)
b-Curriculum development (learning activities, stations, and centers)	33(28.0)	44(37.3)	3(2.5)	0(0)	38(32.2)	118(100)
c-Individualization	43(36.4)	37(31.3)	1(0.8)	0(0)	37(31.3)	118(99.8)
d-Indexing materials	36(30.5)	44(37.3)	2(1.7)	0(0)	36(30.5)	118(100.0)
e-Scheduling	31(26.3)	40(33.9)	8(6.8)	0(0)	39(33.1)	118(100.1)
f-Record keeping and evaluation of pupil progress	44(37.3)	35(29.7)	1(0.8)	0(0)	38(32.2)	118(100.1)
g-Management and behaviors in open space	24(20.3)	32(27.1)	1(0.8)	0(0)	61(51.7)	118(99.9)
(1) Theory of behavior modification	33(28.0)	40(33.9)	4(3.4)	0(0)	41(34.7)	118(100.0)
(2) Use of behavior modification	39(33.1)	35(29.7	3(2.5)	0(0)	41(34.7)	118(100.0)
h-Evaluation of the training program	14(11.9)	52(44.1)	2(1.7)	1(0.8)	49(41.5)	118(100.0)
4 [illegible].2)					6=0	118(100.0)
5 .5)					5=0	

TABLE 10

RELATION BETWEEN THE NUMBER OF ASPECTS IN THE TEACHER'S FIRST OPEN SPACE TRAINING CYCLE WHICH WERE EMPHASIZED "NOT ENOUGH" AND THE NUMBER OF ASPECTS NOW WELL DEVELOPED FOR THE TEACHER'S STUDENTS IN OPEN SPACE.

Number of training cycle aspects emphasized "Not Enough" Question 20

		LOW (0-3)	HIGH (4-6)	SUMS
Number of aspects now well developed for teacher's students (Question 31)	LOW (0-2)	25	31	56
	HIGH (3-9)	32	25	57
	SUMS	57	56	113

Chi Square = 1.49; df = 1; $P < .05$; not significant

Table 11

RELATION BETWEEN THE NUMBER OF ASPECTS IN THE TEACHER'S FIRST OPEN SPACE TRAINING CYCLE WHICH WERE EMPHASIZED "JUST RIGHT" AND THE NUMBER OF ASPECTS NOW WELL DEVELOPED FOR THE TEACHER'S STUDENTS IN OPEN SPACE.

Number of training cycle aspects emphasized "Just Right" (Question 20)

Number of aspects now well developed for teacher's students (Question 31)		LOW (0-5)	HIGH (6-16)	SUMS
	LOW (0-2)	33	26	59
	HIGH (3-9)	21	35	56
	SUMS	54	61	115

Chi Square = 3.93; df = 1; $p < .05$; significant

Table 12

RELATION BETWEEN THE NUMBER OF ASPECTS IN THE TEACHER'S FIRST OPEN SPACE TRAINING CYCLE WHICH WERE EMPHASIZED "TOO MUCH" AND THE NUMBER OF ASPECTS NOW WELL DEVELOPED FOR THE TEACHER'S STUDENTS IN OPEN SPACE.

Number of training cycle aspects emphasized "Too Much" (Question 20)

Number of aspects now well developed for teacher's students (Question 31)		LOW (0)	HIGH (1-16)	SUMS
	LOW (0-2)	45	14	59
	HIGH (3-9)	46	13	59
	SUMS	91	27	118

Chi Square = 0.06; df = 1; $p < .05$; not significant

Table 13

RELATION BETWEEN HOW TEACHER TRAINEE CAME TO PARTICIPATE IN FIRST TRAINING CYCLE AND THE NUMBER OF ASPECTS NOW WELL DEVELOPED FOR THE TEACHER'S STUDENTS IN OPEN SPACE.

Reason for coming to participate in first training cycle (Question 16A)	Number of aspects well developed for teacher's students (Question 31) LOW (0-2)	HIGH (3-9)	SUMS
0. No response	7	4	11
1. Heard about it, volunteered	19(2)	19(8)	38(10)
2. Urged to participate by co-workers	4	1(4)	5(4)
3. School changing to open space	15(2)	12(5)	27(7)
4. Did not participate	4	9	13
Multiple response	2	8	10
SUMS	51	53	104

Note: Cell entries are numbers of teacher trainees. Numbers in parentheses are added frequencies from those giving multiple responses.

No Chi Square was calculated for this table.

Table 14

RELATION BETWEEN HOW TEACHER CAME TO TEACH IN AN OPEN SPACE SCHOOL AND THE NUMBER OF ASPECTS NOW WELL DEVELOPED FOR THE TEACHER'S STUDENTS IN OPEN SPACE.

Number of aspects well developed for teacher's students (Question 31)

Reason for coming to teach in an open space school (Question 16B)	LOW (0-2)	HIGH (3-9)	SUMS
0. No Response	5	2	7
1. Part of school going open space, volunteered	3	17	20
2. Entire school changed to open space	11	7	18
3. Asked for transfer to open space school	30	17	47
SUMS	49	43	92

Chi Square (of categories 1, 2, and 3 of Question 16B) = 9.22; df=2, $p < .01$ significant

Table 15

RELATION BETWEEN HOW MUCH A TEACHER TRAINEE PARTICIPATED IN PLANNING OF FIRST TRAINING CYCLE AND THE NUMBER OF ASPECTS NOW WELL DEVELOPED FOR THE TEACHER'S STUDENTS IN OPEN SPACE.

Number of aspects well developed for teacher's students (Question 31)

How much participated in planning (Question 19A)	LOW (0-2)	HIGH (3-9)	SUMS
1. Not at all	24	28	52
2. In few respects	5	4	9
3. In most respects	5	3	8
4. In all respects	10	8	18
SUMS	44	43	87

Chi Square (with Question 19A category 1 compared with categories 2, 3, and 4 pooled) = 0.75; df=3, not significant

Table 16

PERCENT OF PARTICIPANTS FROM EACH CYCLE WHO REPORT GIVING VARIOUS NUMBERS OF TEACHER-MADE DIAGNOSTIC TESTS DURING THE 1973-74 SCHOOL YEAR

Cycle Number	Location	Number of Participants Responding	Teacher-Made Number of tests Reportedly Given					Row Sums	
			1	2	3	4	5+	Unweighted	Weighted
0	None	25	12.0	20.0	12.0	8.0	48.0	100.0	360.0
1	Ketcham	2	0.0	0.0	50.0	0.0	50.0	100.0	400.0
2	Weatherless	5	20.0	20.0	20.0	0.0	40.0	100.0	320.0
3	Shaed	10	10.0	0.0	0.0	0.0	90.0	100.0	460.0
4	Langdon	6	16.7	16.7	0.0	33.3	33.3	100.0	349.8
4	Webb	6	0.0	16.7	0.0	0.0	83.3	100.0	448.4
5	Carver	8	25.0	0.0	12.5	25.0	37.5	100.0	350.0
6	Bruce-Monroe	7	28.6	28.6	14.3	14.3	14.3	100.1	257.2
6	Malcolm X	24	25.0	4.2	8.3	12.5	50.0	100.0	358.3
Column averages			17.2	11.8	9.7	10.8	50.5		
Column sums		93[b]							

a. These are the sum of products. In each row each percent is multiplied by the number at the head of the column to form a product. The sum of these products are thus the percents weighted by the number of tests. The higher the weighted sum the more tests reportedly given by the teachers.

b. 25 participants did not respond to this question (No. 17).

Table 17

PERCENT OF PARTICIPANTS IN EACH TRAINING CYCLE WHO FOUND SPECIFIC ASPECTS OF TRAINING PROGRAM USEFUL.

Training Program Aspect	Did not Participate in any Cycle	Cycle Number I	II	III	IV(a)	IV(b)	V	VI(a)	VI(b)	Unweighted Row Average
(Question 22)										
1	2.9	33.3	80.0	60.0	44.4	100.0	55.6	50.0	50.0	40.7
2	5.9	33.3	60.0	40.0	88.9	83.3	66.7	40.0	59.4	44.1
3	2.9	0.0	40.0	10.0	44.4	66.7	11.1	30.0	21.9	19.5
4	5.9	33.3	60.0	30.0	66.7	83.3	55.6	50.0	50.0	39.0
5	0.0	0.0	40.0	10.0	22.2	50.0	33.3	30.0	28.1	19.5
6	5.9	66.7	40.0	10.0	77.8	66.7	33.3	30.0	40.6	31.4
7	0.0	66.7	0.0	10.0	0.0	33.3	0.0	20.0	15.6	10.2
8	2.9	33.3	0.0	20.0	0.0	50.0	0.0	10.0	6.3	8.5
9	0.0	0.0	40.0	20.0	22.2	66.7	0.0	20.0	3.1	11.0
10	2.9	0.0	20.0	10.0	0.0	0.0	0.0	0.0	6.3	4.2
11	54.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	17.9
Average Number of aspects endorsed by participants in each cycle	.82	2.67	3.80	2.20	3.67	6.00	2.56	2.80	2.88	
Number of participants responding in each cycle	34	3	5	10	9	6	9	10	32	

NOTE: IV(a) = Langdon
IV(b) = Webb
VI(a) = Bruce-Monroe
VI(b) = Malcolm X

Table 18

PERCENT OF PARTICIPANTS IN EACH TRAINING CYCLE WHO FOUND SPECIFIC ASPECTS OF TRAINING PROGRAM LEAST USEFUL

Training Aspects	Did not participate in any cycle	Cycle Number I	II	III	IV(a) Langdon	IV(b) Webb	V	VI(a) Bruce-Monroe	VI(b) Malcolm X	Row Average
1. Organization of space and equipment	0.0	0.0	20.0	0.0	22.2	0.0	11.1	10.0	6.3	5.9
2. Team Process	0.0	0.0	0.0	20.0	0.0	0.0	0.0	10.0	9.4	5.1
3. Diagnosing & Prescribing	0.0	0.0	20.0	10.0	0.0	0.0	22.2	40.0	21.9	12.7
4. Learning Station Development	0.0	0.0	0.0	10.0	11.1	0.0	11.1	10.0	9.4	5.9
5. Individual-ization	0.0	0.0	20.0	20.0	0.0	0.0	11.1	10.0	9.4	6.8
6. Scheduling	0.0	0.0	20.0	20.0	11.1	16.7	11.1	20.0	6.3	8.5
7. Indexing Materials	2.9	0.0	20.0	40.0	22.2	33.3	11.1	30.0	25.0	18.6
8. Record Keeping	0.0	0.0	40.0	20.0	22.2	0.0	11.1	30.0	12.5	11.9
9. Theory & Practice of Behavior Modification	0.0	0.0	20.0	10.0	33.3	0.0	44.4	30.0	31.3	18.6
10. Other	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.7
11. Not applicable	62.5	66.7	0.0	10.0	40.0	50.0	11.1	0.0	9.7	28.8
No of participants from each cycle who responded	34	3	5	10	9	6	9	10	32	118

Table 19

PERCENT* OF PARTICIPANTS FROM EACH CYCLE WHO FIND SPECIFIC ASPECTS OF THE OPEN-SPACE PROGRAM AT THEIR SCHOOL TO BE WELL DEVELOPED

Program Aspects	TRAINING CYCLE None	I	II	III	Langdon IV	Webb IV	V	Bruce-Monroe VI	Malcolm X VI	Row Average
1. Organization of space equipment	52.9	66.7	80.0	30.0	55.6	83.3	33.3	30.0	37.5	46.6
2. Team process	41.2	66.7	80.0	40.0	66.7	83.3	66.7	40.0	50.0	51.7
3. Diagnosing & Prescribing	39.4	33.3	80.0	20.0	44.4	66.7	22.2	10.0	9.4	29.1
4. Learning Station Development	50.0	66.7	100.0	20.0	77.8	83.3	55.6	60.0	25.0	48.3
5. Individual-ization	41.2	66.7	20.0	20.0	55.6	83.3	33.3	30.0	15.6	33.9
6. Scheduling	35.3	66.7	40.0	20.0	55.6	50.0	33.3	40.0	18.8	33.1
7. Indexing Material	26.5	66.7	40.0	0.0	11.1	33.3	11.1	10.0	12.5	18.6
8. Record Keeping	20.6	33.3	40.0	20.0	0.0	50.0	11.1	10.0	12.5	17.8
9. Theory & Practice of Behavior Modification	15.2	33.3	20.0	10.0	11.1	66.7	0.0	20.0	9.4	15.4
10. Other	5.9	0.0	0.0	30.0	0.0	0.0	0.0	10.0	3.1	5.9
No. of participants in each cyle who responded	34	3	5	10	9	6	9	10	32	118

* Each column contains more than 100% since each participant was e[illegible] ect.

Table 20

PERCENT OF PARTICIPANTS RATING SPECIFIC ASPECTS OF FOLLOW-UP TRAINING AS MOST USEFUL WITH THE PERCENT OF PARTICIPANTS RATINGS 0-9 ASPECTS OF OPEN SPACE PROGRAM IN CURRENT SCHOOL "WELL DEVELOPED"

Number of Aspects Rated as "Well-Developed" (Question 31)

Follow-up Training Aspects (Question 30)	0	1	2	3	4	5	6	7	8	9	*
No Response	82.8	25.0	29.4	31.6	44.4	28.6	33.3	0.0	33.3	28.6	51
1	13.8	50.0	35.3	36.8	22.2	0.0	25.0	33.3	0.0	42.9	32
2	0.0	8.3	11.8	10.5	0.0	28.6	16.7	33.3	33.3	0.0	11
3	0.0	8.3	5.9	15.8	0.0	0.0	8.3	33.3	0.0	0.0	7
4	0.0	8.3	0.0	5.3	33.3	28.6	0.0	0.0	0.0	14.3	8
5	0.0	0.0	11.8	0.0	0.0	14.3	0.0	0.0	33.3	0.0	4
6	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	1
7	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	1
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
9	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	14.3	2
10	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
Column average	24.6	10.2	14.4	16.1	7.6	5.9	10.2	2.5	2.5	5.9	

* Number of Pa[illegible]o Considered Specific Aspects "Most Useful"

Table 21

RELATION OF NUMBER OF "MOST USEFUL" ASPECTS OF FOLLOW-UP TRAINING TO NUMBER OF WELL DEVELOPED ASPECTS OF TEACHER'S CURRENT OPEN SPACE PROGRAM.

Number of well developed aspects of current program (Question 31)	Number of "most useful" aspects of follow-up training (Question 30) LOW (0)	HIGH (1-10)	SUMS
LOW (0-2)	32	26	58
HIGH (3-9)	19	41	60
SUMS	51	67	118

Chi Square = 6.61; df = 1; $p < .02$

Table 22

PERCENT OF PARTICIPANTS WITH DIFFERENT EXPERIENCES/TRAINING IN OPEN EDUCATION PRIOR TO PARTICIPATION IN TRAINING CYCLE WHO RATE AS WELL DEVELOPED SPECIFIC ASPECTS OF THE OPEN SPACE PROGRAM IN THEIR CURRENT SCHOOLS.

Types of Experience in Open Education
(Question 1)

Program Aspect (Quest.31)	0*	1**	2	3	4	5	6	Row Average
0	55.2	13.8	24.1	3.4	3.4	0.0	0.0	24.6
1	41.7	33.3	16.7	0.0	8.3	0.0	0.0	10.2
2	52.9	23.5	11.8	5.9	0.0	5.9	0.0	14.4
3	63.2	21.1	0.0	15.8	0.0	0.0	0.0	16.1
4	55.6	22.2	22.2	0.0	0.0	0.0	0.0	7.6
5	14.3	57.1	0.0	14.3	14.3	0.0	0.0	5.9
6	50.0	16.7	25.0	0.0	0.0	0.0	8.3	10.2
7	33.3	33.3	0.0	33.3	0.0	0.0	0.0	2.5
8	0.0	0.0	100.0	0.0	0.0	0.0	0.0	2.5
9	28.6	14.3	28.6	28.6	0.0	0.0	0.0	5.9
Number of participants who responded as having a specific kind of experience.	57	26	21	9	3	1	1	99.9 118

* No response
** No experience

Table 23

PERCENT OF PARTICIPANTS WITH 0 TO 8 SEMESTERS OF PREVIOUS TRAINING/EXPERIENCE IN OPEN EDUCATION PRIOR TO PARTICIPATION IN TRAINING CYCLE WHO RATE AS WELL DEVELOPED, SPECIFIC ASPECTS OF THE OPEN SPACE PROGRAM IN THEIR CURRENT SCHOOL.

Number of Aspects of Program Considered Well-Developed (Question 31)	Number of Semesters of Previous Training/Experience (Question 1)								
	0	1	2	3	4	6	7	8	Row Average
0	75.9	17.2	3.4	0.0	3.4	0.0	0.0	0.0	24.6
1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
2	70.6	11.8	11.8	0.0	0.0	0.0	5.9	0.0	14.4
3	78.9	0.0	15.8	5.3	0.0	0.0	0.0	0.0	16.1
4	77.8	22.2	0.0	0.0	0.0	0.0	0.0	0.0	7.6
5	57.1	14.3	28.6	0.0	0.0	0.0	0.0	0.0	5.9
6	50.0	25.0	16.7	0.0	0.0	8.3	0.0	0.0	10.2
7	66.7	00.0	0.0	0.0	0.0	0.0	0.0	33.3	2.5
8	33.3	33.3	0.0	33.3	0.0	0.0	0.0	0.0	2.5
9	57.1	14.3	0.0	0.0	14.3	14.3	0.0	0.0	5.9
									99.9
Number of participants Who Responded as Having 0-8 Semesters of Previous Training	85	15	10	2	2	2	1	1	118

NOTE: No participants reported 5 semesters.

Table 24

PERCENT OF PARTICIPANTS WITH TEACHING EXPERIENCE ON PRE-KINDERGARTEN TO SIXTH GRADE LEVEL WHO RATE 0 TO 9 ASPECTS OF THE OPEN SPACE PROGRAM IN THEIR SCHOOL AS WELL DEVELOPED

Grade Level Taught (Question 2)

Number of Aspects Rated Well Developed (Question 31)	No Response	Pre-K	Kindergarten	1st	2nd	3rd	4th	5th	6th	Other	Row Average
0	10.3	20.7	34.5	24.1	3.4	3.4	3.4	0.0	0.0	0.0	24.6
1	8.3	16.7	16.7	25.0	16.7	16.7	0.0	0.0	0.0	0.0	10.2
2	5.9	11.8	23.5	23.5	17.6	0.0	5.9	5.9	0.0	5.9	14.4
3	5.3	10.5	42.1	36.8	0.0	5.3	0.0	0.0	0.0	0.0	16.1
4	0.0	44.4	44.4	11.1	0.0	0.0	0.0	0.0	0.0	0.0	7.6
5	0.0	28.6	0.0	42.9	0.0	0.0	0.0	14.3	14.3	0.0	5.9
6	0.0	0.0	16.7	50.0	16.7	0.0	8.3	0.0	0.0	8.3	10.2
7	0.0	0.0	33.3	0.0	33.3	0.0	0.0	33.3	0.0	0.0	2.5
8	0.0	0.0	33.3	66.7	0.0	0.0	0.0	0.0	0.0	0.0	2.5
9	0.0	14.3	28.6	14.3	14.3	14.3	14.3	0.0	0.0	0.0	5.9
Number of participants With Experience In Specific Grade Level Teaching	6	19	34	34	10	5	4	3	1	2	99.9 118

F I N A L E V A L U A T I O N R E P O R T

ESEA Title III Project

The Training Center for Open Space Schools

Public Schools of the District of Columbia

Summer 1974 Cycle ("Modified Cycle VII")

October 1974

Submitted To: Dr. Mildred Cooper
Assistant Superintendent
Department of Planning, Research and Evaluation
Public Schools of the District of Columbia

Training Centers		Schools
Amidon Elementary School	-	Amidon & Bowen Schools
Langdon Elementary School	-	Brookland School
Malcolm X Elementary School	-	Orr & Washington Highland Schools
Ruth K. Webb Elementary School	-	Kimball School

Prepared By: Leopold O. Walder, Ph.D.
Marcella G. Walder
Linda J. Garofalo

Behavior Service Consultants, Inc.
133 Centerway
Post Office Box 186
Greenbelt, Maryland 20770

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I. Abstract

An outside evaluation of the Summer of 1974 ("Modified Cycle VII") Open Space Training Cycle was conducted. Review of documents, informal interviews, early and post cycle questionnaires, and direct observations were the main methods used to assess the correspondence between the objectives of the training cycle and its accomplishments. The training cycle, although modified somewhat by the inclusion of an outside consultant to provide training to the same trainees during the same period, appears to have achieved its objectives. Recommendations to continue most of the practices and to modify some are provided in this final evaluation report. Raw data, findings derived from formal and informal analyses of data, and site visit reports are included.

II. Purpose

To provide to the Assistant Superintendent for Planning, Research and Evaluation of the D.C. Public Schools an evaluation of the Summer of 1974 Training Cycle ("Modified Cycle VII") of the Training Center for Open Space Schools (TCOSS), which was held at Ruth K. Webb, Malcolm X, Amidon, and Langdon Elementary Schools. One of the central issues of this evaluation is the determination of the correspondence between the objectives of the training cycle and its accomplishments. Another important issue is the question: What are the effects, if any, of an additional consultative program on the effectiveness of the TCOSS program?

III. Background

A. General

The Summer of 1974 Training Cycle was built upon the six preceding training cycles. It, like preceding training cycles, continued the trend of increasing the use as trainers of the D.C. Public Schools' personnel who had been trainees in previous cycles. However, it differed from Cycles III through VI in that an outside consultant was retained to do specific aspects of the training program. This introduced a number of important changes (e.g., reduction in contact hours between TCOSS staff and trainees, etc.). It was similar to Cycle II, IV and VI, in that it occurred in the summer when the teacher trainees did not have ongoing responsibilities to their full complement of students. However, it was different, in that there were no children available for the teachers to work with.

The four training sites, Amidon, Langdon, Malcolm X, and Ruth K. Webb Elementary Schools were not the schools to which the majority of the participants were to be assigned in September 1974. The four schools, Bowen, Brookland, Washington-Highland, and Orr, to which most of the participants in the "modified" Cycle VII were to be assigned were not completed in time to allow for on-site training. This is a shift in procedure in that the trainees were not, in Cycle VII, practicing their new behaviors and building and assembling their materials in the exact site to be used with the students.

The majority of the participants were teachers who had not yet taught in Open Space and who would be assigned to the five new Open Space

going Open Space programs, were represented among the trainees. There was also a sizeable number of teacher-aides, the majority of whom were affiliated with either the Career Opportunity Program or Bruce-Monroe School, participating in the training program at Webb.

B. Selection of Personnel

The majority of the teachers, who were assigned to the new Brookland School for the Fall of 1974, were already part of the old Brookland School staff. The personnel of the Brookland Open Space School was made up of those teachers from the former Brookland School who wished to become open space teachers by way of being participants in the Summer 1974 Training Cycle ("modified Cycle VII") at Langdon School. The Principal of the former Brookland School (who was to serve as Principal in the new school) and a newly hired Assistnt Principal (who has worked as an Open Space Coordinator in an open space program) participated in the Cycle VII training program as trainee and trainer respectively.

The personnel of Bowen School is a wholly new faculty. A majority of the teachers selected came from schools in the area where they were teachers and from colleges where they were students of education. This is also true of the faculty of Orr, Washington-Highlands, and Kimball Schools. For those schools with wholly new faculties, a standard selection process was used. The teachers were selected on the following criteria: 1) They had to volunteer for the program, usually by writing letters of applications in response to city-wide publicity. 2) They filled out a questionnaire about their feelings about open space. 3) The TCOSS staff observed the applicants who were already teaching in their self-contained classrooms and rated these teachers on an observation rating scale on use of open space concepts in their self-contained classrooms. 4) The TCOSS staff interviewed the teachers.

IV. Evaluation Design

The design includes the development of hypotheses to be tested, the selection of the variables to be measured, the development of appropriate measuring instruments, location of the sources of relevant data, processing of these data to obtain findings, and the presentation of these findings, as well as conclusions and recommendations relevant to the evaluation.

The basis for the development of the hypotheses to be tested and the selection of variables to be measured came from several sources. A major source was the various Program Schedules of the Summer of 1974 Open Space Training Program provided to the evaluators by the TCOSS staff. These program schedules (appended in the Attachment Section of this report as Attachments A and B.) facilitated the determination of the hypotheses and selection of corresponding variables. Another major source of hypotheses to be tested came from discussions with the Educational Research and Planning Associate of TCOSS. Other sources of hypotheses and variables came from suggestions available to the evaluator from his evaluations of previous cycles, his readings about, discussions concerning, and observations of open space programs.

The hypotheses, with corresponding predictor variables, are as follows:

Hypothesis I

There are certain characteristics of the training program entitled "Training Center for Open Space Schools" which result in increased effectiveness in teaching in open space facilities.

Verification evidence: Characteristics of the training program measured by observation and questions from pre and post cycle questionnaire.

Hypothesis II

Teacher trainees and administrators will be changed in their knowledge of concepts of teaching and learning appropriate to an open space setting.

Verification evidence: Changes in the teacher trainees in knowledge of concepts of teaching and learning appropriate to an open space setting.

Hypothesis III

Teacher-trainees will be provided with practice in the skills necessary to respond to group and individual student needs.

Verification evidence: Provision to the teacher trainees of practice in the skills necessary to respond to a full range of student needs.

Hypothesis IV

Teacher trainees will plan, develop, and practice procedures for operating an effective open space program.

Verification evidence: All participants involved in planning an open space program.

Hypothesis V

The Summer of 1974 Open Space Training Program will, for the most part, meet the objectives of the training program and schedule as described in the three program schedules which are appended as Attachments A, B, and C. This correspondence between plan and action must be assessed with expectation of some "slippage", since the plans were written before 1) decision was made to incorporate outside training consultants into the program and 2) the participants in individual workshops properly had the opportunity to make input into the adjustment of the program at their workshop to meet specific needs of the participants.

Verification evidence: 1) Provision to the trainees of training in the area of: a) skills training (diagnosing, prescribing, developing, indexing, etc.), b) groupings, c) scheduling, d) building the physical aspects of the learning environment, e) organization of space, and f) behavior modification theory and practice. 2) Provision to the teacher trainees of the opportunity to evaluate the training program and make modifications and adjustments in the program and schedule as necessary.

V. Evaluation Methods

Several methods were used to evaluate the Summer of 1974 Open Space Training Cycle: 1) documents were read 2) informal interviews with participants were conducted 3) group administered pre and post training cycle paper and pencil questionnaires were administered to the majority of the participants and 4) observations were made of various presentations and seminars, and of the participants interacting with space, furniture, equipment, and with each other.

A. Informal Interview

Training cycle participants, both teacher trainees and trainers, were informally interviewed during the evaluators' visits to the training workshops. The responses obtained provided additional information about the organization and effectiveness of the training cycle.

1. Description

The actual questions asked of the participants varied, although emphasis was placed on 1) the characteristics of the training cycle and 2) the participants reactions to the training being given. An example of the kind of question asked is "Are you given sufficient time and opportunity to practice skills acquired during the workshop?"

2. Procedure

The participants were interviewed both individually and in groups. The interviews were unstructured, that is, the length and setting of the interview varied. Most participants were interviewed as they went about their work.

3. Scoring

The responses received to the questions were categorized according to subject and informally analyzed.

B. Paper and Pencil Pre-cycle Questionnaire

The pre-cycle paper and pencil questionnaire was developed based on several sources: 1) hypotheses to be examined, 2) evaluator's knowledgeof open space techniques 3) information from evaluations of the first six training cycles, and 4) questionnaires used during previous evaluations.

It was designed to gather information about the knowledge and expectations regarding open space concepts and training of Cycle VII participants prior to the beginning of the training program.

1. Description:

Attachment D is the pre-test questionnaire. Some of the questions deal with the participants' previous assignments and experiences; others are designed to tap their thoughts about the open space concept and, in particular, the training cycle in which they are participating.

2. Procedure:

The questionnaire was originally developed as a pre-test, that is, it was to be administered before the participants actually began formal training. Due to various scheduling problems, the evaluators were not able to administer the questionnaire until the beginning of the second week of the training cycle. Thus, the responses received must be considered as an indication of the thoughts, feelings and expectations of the participants after they had already received some training.

The questionnaire was administered to the entire group, including trainers, of participants at each of the four training sites. One of the training sites, Malcolm X, housed two workshops groups. These two groups were given the questionnaire independent of each other, that is, the questionnaire was administered to them on different dates.

The evaluators provided the participants with an index card in which was written an identification number. These cards were passed out at random to sub-groups (previous i.e., 1973-1974, school assignment) of all participants of each workshop. The identification number will be used to match pre and post questionnaire for each respondent.

The questionnaire itself took approximately 15 minutes to complete, depending on the speed with which individual participants worked. After all the questionnaires had been completed and prior to their collection, the evaluators assited the participants with Questions A, M, and N by reading a list of the code numbers assigned to the participating school.

3. Scoring:

The questions were framed in such a way as to elicit responses into precoded categories. This was designed to facilitate computer processing.

C. Post-cycle Questionnaire

1. Purpose: The post-cycle questionnaire was developed as a measuring instrument which would a) gather information concerning the participants' evaluation of and suggestions about the training program after the training had occurred, b) allow for cross tabulation of participants' responses before and after participation in the training cycle, and c) make the retrieval of relevant information from a large number of participants manageable.

2. Development: The post-cycle questionnaire was developed based on several sources: a) hypotheses to be examined, b) the pre-cycle questionnaire, used during the current evaluation, c) informal interviews with participants, d) information from evaluations of the first six training cycles, e) new insights from a follow-up evaluation study of the first six training cycles which was completed but not yet analyzed, and f) the evaluator's knowledge of open space techniques.

An early version of the post-cycle questionnaire was designed during the initial stages of the training cycle. Based upon feedback from respondents who were administered the pre-cycle questionnaire, the post-cycle questionnaire was refined and a final post-test was developed.

3. Description: Attachment E is the post-test which was administered to the participants. A two-digit participant number, which had been randomly assigned to participants during the pre-test administration, is used as the means of identifying the questionnaire as taken by a particular respondent and correlating it with the pre-test of the same respondent.

Several of the questions included in the post-test incorporate portions of question from the pre-test. The questions included in the post-test deal with 1) aspects of the training program and 2) the scheduling and organization of the training cycle itself. The responses to many of the questions have been pre-coded in order to facilitate analyses of the responses.

4. Procedures: The post-test was group administered, that is, all the participants in the workshop at a particular training site were given the questionnaire at the same time. The questionnaire was administered on the last day of the workshop at each training site, with the exception of Langdon School, where it was administered on the next to the last day of the workshop.

One hundred and fifty nine participants were administered a post-test; these participants included teacher-trainees, teacher-aide trainees, trainers, and workshop directions. Although the evaluation design called for the administration of the questionnaire to all participants in the training cycle, particularly those who had taken the pre-test, it was not possible, because of teachers' absences, to administer the questionnaire to the total population. However, the majority of the participants at each of the training sites participated in the post-test.

The setting of the questionnaire administration, was the main workshop area. The time necessary to complete a questionnaire varied for each participant, with a time range of 5 to 25 minutes, with most participants completing the questionnaire in about 12 minutes.

5. Scoring: Pre-set responses to the questions have been framed and pre-coded in such a way as to facilitate computer processing. Questions have been categorized according to hypotheses and the variable(s) within these hypotheses. Relationships between variables are investigated here.

D. Direct Observation

The evaluators visited each of training sites in order to make observations of: 1) the participants interacting with each other 2) the participants practicing open space skills and 3) to sample specific skills training presentations made by both TCOSS trainers and consultants from Mediax.

1. Procedure

The evaluators, either individually or with one or more co-evaluators, visited each training workshop to observe the activities and interactions taking place during the training. Discretion was used in all observation activities so that the evaluators' presence disrupted what was going on as little as possible. General observations of the activities, materials, and interactions within the entire training center were made. Notes were taken by the evaluator(s) on all he/she observed during the observation period.

2. Scoring

Observations have been according to the existence, frequency and quality of specific training aspects which were included in the training cycle curriculum.

VI. Results

Two general types of data are presented in the Results section. They are (1) direct observations of the training activities of the TCOSS staff and of the outside consultant MEDIAX and (2) responses of participants to pre and post tests, i.e., questionnaires given early in the training cycle and immediately after the training cycle. Findings from these different data sources will be presented, attempting to determine how well the training cycle approximated the plans for a quality training program for open space education.

Reactions of trainers may be a mixture of reactions to both TCOSS and MEDIAX.

A. Direct Observations

The Modified Cycle VII training program included the following training activities: formal and informal presentations (by TCOSS trainers and consultants from Mediax) on topics pertaining to the organization and operation of a successful open space program, groups seminars focusing on specific skills, activities involving the development and use of teaching curriculum and materials, site visits to the new open space facilities, and various program evaluation activities.

The kinds of training activities engaged in by the participants in the Summer 1974 training cycle were in part influenced by the fact that children were not involved in the training program. The absence of children in the training centers can be seen as adding to the effectiveness of the training in some ways and subtracting from it in other ways. The absence of children does not permit a trainee to "try out" newly acquired skills with students prior to the assumption of full responsibility for a group of students. The inclusion of children in the training cycle allows a participant to put into practice some of the open space teaching skills learned, thereby providing immediate feedback to the participant as well as adding to the realism of the training program. However, by not having children involved during the four week training program, the participants were able to devote a larger portion of their time and energies to presentations, seminars, and skills practice.

Observations of the training activities allowed the evaluators to assess the degree of correspondence between the observed activities and interactions and the training objectives set forth in the various training program schedules (see Attachments A, B, C). The five training workshops were well organized and seemed to provide a variety of learning experiences and activities to the participants.

The evaluators were able to sample some presentations on learning stations made by TCOSS trainers - among the presentations sampled were those dealing with development and use of learning stations, scheduling, and process approach to the teaching of science. The content, format and delivery style of the presentations were quite good; the trainers paced the presentation of the material to the needs of the trainees. For example, a trainer did an "on the spot" revision of a programmed schedule for a seminar/presentation on scheduling when she perceived that the trainees wanted additional emphasis on a certain aspect of scheduling. As a means of responding to this need, she and several other trainers did some impromptu role playing of a team working together to develop a schedule for students in their learning center. This flexibility and sensitivity was demonstrated repeatedly by trainers and trainees alike as they worked together.

Observations were made of the trainees working on the construction of the learning environment. Trainees, individually or in groups, were required to construct at least one learning station in a subject area of their choice. (Since they were not being trained at the school

in which they would be working in the fall, they elected to take their stations home with them at the end of training so that they could use them in the fall.) Most of the stations included several tasks, some of them multi-level. Those teachers who were jointly working on a station seemed to have a good working relationship. In one instance, one trainee's rejection of another's suggestion was done in a positive manner and resulted in the group beginning an enthusiastic discussion of their criteria for this station. Teacher-trainees are able to learn from each other as well as from those officially designated as trainers. This is very much in tune with the philosophy of the kind of learning environment provided by open space programs.

The coordination of an outside consultant's services with the TCOSS program partially shaped the training schedule, in that it gave the TCOSS staff less time in which to present items on the TCOSS training agenda to the participants. Since the training day was already shortened to 1/2 day sessions, the participants seemed to feel that less emphasis on the Mediax program and more on the TCOSS program would have been appropriate. (See Table VIII in the Attachment Section of this report.) Disappointment about Mediax' inability to supply teacher "teaching" stations to the participants while the training program was in progress was expressed by trainers at each of the five training centers.

The observers sampled specific presentations made by consultants from Mediax. A presentation on the basic principles of behavior modification was very well done. The consultant appeared to be highly skilled in both his manner of presentation and his ability to choose materials with which accompany his verbal presentation. Other consultants were observed to be less dynamic and less in tune with the needs of the training cycle participants. Several other presentations were described by training cycle participants as being "not at all helpful"and "uninteresting".

The issue of including an outside training consultant in the training program is a sensitive and a very important one. Although outside consultants can broaden the scope of the training, it is also vital that the inclusion of outside trainers result in positive training experiences for participants.

B. Paper and Pencil Questionnaires

Table I presents the previous experiences in Open Education which the participants had prior to their participation in the Summer 1974 training program. Inspection of the table reveals that the majority of the participants have some sort of experience in open education prior to participation in the Summer 1974 training cycle. For the most part, this experience consisted of visiting open space facilities and/or taking courses in open space concepts.

The response to the categories of experience of "participated as trainee" and "participated as trainer" in previous cycles show that from 20.3 to 25.9% of the participants have participated as either a trainee or a trainer in a previous cycle. It could be assumed that, since they have participated in at least one previous cycle prior to the Summer of 1974 cycle, they are now serving as trainers in the current cycle. Analysis of the data obtained from Pretest Question I, which deals with the role of participant in Cycle VII, supports this assumption. On this question 21.7% of the participants described themselves as serving in the role of trainer or in some other non-trainee capacity in Cycle VII. This reflects the increasing use of more and more D.C. School's personnel as trainers in training cycles.

Table I shows that 29.4% of the participants taught in open space prior to participation in Cycle VII. One could assume that included in this group are those respondents who participated as either a trainee or a trainer in a previous cycle, in other words, those who had training in one cycle and/or served as a trainer in one or more additional cycles. If this assumption is correct, then we can look at the participants who have participated in some role in a previous cycle (20.8% as a trainee and 5.1% as a trainer). Thus, of the 29.4% who have taught in open space from 3.5% (29.4% minus the sum of 20.8% and 5.1%) to 8.6% (29.4% minus 20.8%) of the Cycle VII participants taught in open space prior to receiving open space training in a TCOSS training cycle. To repeat, from 3.5% to 8.6% of teachers in this training cycle taught in open space without any TCOSS training in open space.

Table II presents statistical analyses of the responses given to Pretest Question J. This question deals with specific training aspects viewed as relevant to an open space teaching approach, revealed no significant difference in the number of aspects endorsed as relevant by participants from different training sites. This shows that the participants from each training site in the Cycle VII program were in agreement, during the early part of the training cycle, on the training aspects and skills which they thought should be emphasized during the training program.

The training aspects receiving the greatest number of endorsements are, in order: team process (endorsed by 80.9% of the participants), learning station development, organization of space and equipment, and scheduling (endorsed by 74.6% of the participants). These data are consistent with the findings from evaluations of previous cycles. Participants in Cycle VII and participants in earlier cycles are in agreement as to the skills considered appropriate for operation of an effective open space program and which therefore should be emphasized in training for open space.

Table III presents the reactions of the participants at each training site to scheduling the training cycle in the summer as compared to it being scheduled during the school year. Inspection of the table suggests that there were no significant differences among the reactions

of those in the four training sites. Majorities in each of the four groups stated that they were glad that it was in the summer.

Table IV and V present reactions of the participants to a second aspect of the scheduling of the training cycle, namely whether it was the proper length. Table IV shows that early in the cycle the majority of the participants in each of the four training sites thought it was the proper length. Inspection of this table suggests that there are no significant differences among participants at the four training sites in their reactions.

Table V relates the reactions to this same scheduling question early in the training cycle to reactions immediately after the training cycle ended. Unfortunately the frequencies are too small to permit a statistical analysis such as Chi Square. Inspection shows that a majority believed both early in and immediately after the cycle that it was the proper length. Of those who early thought it was too long two thirds later thought it was too long. Similarly, the zero frequencies in the two cells farthest from the principal diagonal show that early reaction tended to predict later reaction. Thus, 26 of the 40 maintained their original view, 14 of 40 changed only one step, and zero of 40 changed two steps.

It is instructive to evaluate the training by looking at the marginal sums of Table V. Early in the training 32 of 40 thought the cycle to be proper length; immediately after training only 24 of 40 thought it to be proper length. Furthermore, of the 32 who thought it to be proper in length, 7 shifted to "too long" while only 4 shifted to "not long enough". One may ask why, while the majority of trainees continued saying that the training cycle was the proper length, a large percentage of those who did shift ended up by stating that the training cycle was too long. One may ask what got those who did shift (about 25%) to shift to the negative rating of "too long".

While we did not ask precisely this question, our informal interviews seemed to indicate that the teachers were dissatisfied with the outside consultant MEDIAX, not with the D. C. Schools' TCOSS.

Table VI presents the percent of participants rating specific training aspects as Underemphasized, Just Right, and Overemphasized at the end of the training cycle. Inspection of the table shows that from 64% to 92% of the participants gave a rating of "Just Right" to the emphasis placed on specific training aspects. The training aspects receiving the greatest number of "Just Right" endorsements are, in order: family team grouping, identification and discussion of positive behaviors, instructional team grouping, theory behind behavior modification, developing learning activities and stations, and using and adapting existing materials and equipment. It should be noted that the high percentage of ratings in this category does not necessarily indicate that the participants consider them to be the skills most relevant to an Open Space program, but rather that they were completely satisfied with the

emphasis placed on each particular skill during the training (See Table II for data on the skills considered by participants to be most relevant.)

Specific training aspects were rated by participants as being underemphasized. The skills which some participants would have liked to have spent more time on are, in order: Diagnosing, prescribing, scheduling, indexing, seminars and using and adapting existing materials.

Although the data indicates that there is some difference of opinion among participants as to the ratings given specific skills, it is obvious that the general consensus was that very few training aspects were overemphasized. The only training aspect receiving ratings of "overemphasized" from more than 10% of the participants was "Seminars".

Table VII presents the number of participants who endorsed specific skills as worthy of emphasis at the beginning of the training cycle with the number of participants rating these same skills as "Underemphasized", "Just Right" and "Overemphasized" at the end of the training cycle. Inspection of the table shows that the majority of participants responded with endorsements of "Just Right" to all training skills. This seems to indicate that the participants expectations concerning the content of the training program were met, since the general concensus was that the skills relevant to an Open Space program were given the proper amount of emphasis. Within the grouping of the skills endorsed as "Worthy of Emphasis" and "Just the Right Amount of Emphasis", the following training skills were given the greatest number of endorsements: 1) Team process (family team grouping), Team process, (instructional team grouping), Scheduling, Learning Station Development, and Organization of Space and Equipment.

A rating of "underemphasized" was given by some participants to specific training skills. The skills endorsed as underemphasized by these participants were: 1) Individualization (diagnosing), Diagnosing and Prescribing (Diagnosing),Diagnosing and Prescribing (Prescribing) and Scheduling. (The skills in parentheses refer to the names given skills in the Pre Test question concerning the skills worthy of emphasis; the skill name which is not parenthesized refers to the skill as listed in Post Test Question F which dealt with the rating of specific training aspects after the training was over.)

A total of only six endorsements of "overemphasized" were given by participants. This suggests that the participants were, for the most part, satisfied with the training received. Additional emphasis, not less emphasis, in all training skills was seen as appropriate by some of the respondents.

Table VIII presents the participants view (at the end of the training cycle) of the coordination of an outside training consultant program with the training given by TCOSS. Since the four response alternatives are not mutually exclusive, participants were encouraged to

respond to each category separately. Thus, the total number of responses is greater than the total number of participants responding to this(Question F of Post Test) question. The findings shall be discussed by response alternative.

Inspection of the table shows that 57.5% of the participants who responded to category 1 "felt it was effective" rated the coordination of the inhouse and outside consultant programs as effective. Thirty-three percent of the participants, however, who responded to category 2 "would have preferred more time for the TCOSS program" wanted more time and emphasis on the TCOSS program. The responses given to category 3 "would have preferred more time for the TCOSS program" indicate that only 14.4% of the respondents from this category would have wanted more time allotted to the Mediax program.

The total number of responses made was 181. Since formal analysis of the data indicates that all 160 of the participants who took a post test responded to this question, one can therefore conclude that most participants responded to only one category. This indicates that the majority of participants treated each alternative as being mutually exclusive and therefore checked the one which they felt was most appropriate. This suggests that approximately half of the participants felt that the training cycle was effective, and approximately a third would have preferred more time and emphasis on the TCOSS program.

VII. Conclusions

1. The absence of children as participants in the Summer of 1974 training cycle had both positive and negative effects on the quality of training provided. Participants were able to devote more time and energy to seminars and skills presentations and practice; however, they were not able to "try out newly acquired skills with students prior to the assumption of full responsibility for a group of students".

2. Fifteen and a half percent of the participants of Cycle VII served as trainers. This reflects the increasing use of D. C. schools' personnel as trainers.

3. From 3.5% to 8.6% of the participants of Cycle VII taught in Open Space prior to receiving Open Space training in a TCOSS training cycle.

4. The majority of the participants of Cycle VII had some type of previous experience in open education before participation in the training cycle. This experience consisted, for the most part, of visits to Open Space facilities and coursework in Open Space concepts.

5. There was no significant variation in the number of training aspects endorsed as relevant by participants from the various training sites. Thus, the quality of training given at each of the training sites during the Summer of 1974 was consistent.

6. The training aspects receiving the greatest number of endorsements of the cycle are, in order: team process, learning station development, organization of space and equipment and scheduling. These data are consistent with the findings of previous evaluation cycles.

7. The majority of participants gave a rating of "Just Right" emphasis to most of the training aspects. The training aspects receiving the greatest number of "Just Right" endorsements were, in order: family team grouping, identification and discussion of positive behaviors, instructional team grouping, theory behind behavior modification, developing learning activities and stations, and using and adopting existing materials and equipment.

8. Some ratings of "Underemphasized" emphasis on specific training were made by participants. The aspects which received the greatest number of endorsements are, in order: diagnosing, prescribing, scheduling, indexing, seminars, and using and adapting existing materials.

9. Very few training aspects were rated as being "Overemphasized". Participants appear to be asking for more training, not less.

10. The training aspect "Seminars" was the only aspect to receive ratings of "Overemphasized" by a percentage of participants which seemed large enough to be of disturbing consequence. We suspect that the "seminars" were too large to be seminars.

11. The majority of the participants approved of the 1/2 day training sessions.

12. The majority of the participants rated the summer time, as compared to the school year, as the most appropriate time for training.

VIII. Recommendations

1. Since it is clear that TCOSS has been conducting training cycles which are (a) consistent with its intentions, and (b) consistent with teacher trainee satisfaction and (c) consistent with preparing them to provide quality Open Space education to their students, TCOSS should continue.

2. More thought should be given in planning the use of an outside consultant, for example, there should be an upper limit to the size of the audience a lecturer speaks to.

3. Having half day sessions (e.g., from 8:30 a.m. to 12:30 p.m.) which included all training seems like a practice that should be continued.

4. While the percentage of teachers in Open Space facilities who have been trained in Open Space concepts and techniques may have been increasing in the D. C. Schools this percentage should be no less than 100%.

5. The size of the workshop (i.e., the group at the training site) should be limited. When it gets too large, there is less team process and less friendship. A good solution to this was noted at the Malcolm X training site where the group was divided into two workshop. .

6. Ideally, training for Open Space should be on site training, that is, in the same Open Space facility in which the trainees will teach. We as outside evaluators have argued against the TCOSS (note: Training Center for Open Space Schools) doing their training in a center. However, TCOSS' lack of a center may make them administratively fragile and seem to decision makes to be dispensible. (We urge that the TCOSS be continued.)

IX. Summary

An evaluation of Summer 1974 Open Space Training Cycle was conducted. The training sites involved were: Amidon, Langdon, Malcolm X, and Webb Elementary Schools. The participants represent numerous schools - among them are Bowen, Brookland, Kimball, Orr and Washington Highlands Schools. Review of documents, informal interviews, paper and pencil questionnaires and direct observations were the main methods used to assess the correspondence between the objectives of Cycle VII and its accomplishment. One hundred and ninety eight participants responded to a pre test questionnaire, and one hundred and fifty nine participants responded to a post test. Several trainers and teachers at each training site were interviewed informally. Observations were made of the presentations and skills training and practice provided to the trainees.

Raw data, findings derived from statistical analysis of data, conclusions and recommendations are provided in this final evaluation report.

It was determined that the participants would have preferred more emphasis on the TCOSS training and less on the outside training consultant's program. All evidence points to the TCOSS training component having essentially accomplished its objectives.

X. Attachments

A. An example of a Program Description: Training Site at Langdon School

B. An example of a Program Description: Training Sites at Amidon and Malcolm X Schools

C. An example of a Program Description: Training Site at Webb School

D. Pretest Questionnaire

E. Post test Questicnaire

F. Site Visits

X. Attachments

Attachment A. An Example of a Program Description: Training Site at Langdon School

Objectives of The Training Program

At the end of the training program the participants should be able to:

1. Design an individualized program to fit the different needs of each child using Westinghouse Learning Corp. "PLAN", (Learning system)

2. Develop and understand the philosophy and concept of open education

3. Understanding and use the components of the Brookland School Conceptual Plan

4. Work effectively as a member in different team situations

5. Acquire and practice new behaviors that are commensurate with working successfully in Open Space

6. Accept new roles and responsibilities

7. Become knowledgeable of new curriculum programs and materials both hard and soft ware

8. Be able to design and construct stations and organize learning centers to individualize instruction

9. Be able to plan and set up teaching areas in the learning environment

10. Become knowledgeable with effective types of schedules and techniques and procedures

11. Participate in evaluation of training session

BROOKLAND SCHOOL

OPEN SPACE SUMMER TRAINING

JUNE 24, 1974 - JULY 26, 1974

LANGDON ELEMENTARY
BROOKLAND SCHOOL

****

June 24 - 28

Westinghouse Learning Corporation - PLAN

(Program for Learning the Assessment of Needs)

Trainer - Mr. Jim Lawson - Consultant
Sole Source Justification
The Westinghouse Learning Corporation PLAN is an individualized educational system. It is a unique comprehensive cohesive system of instruction including management tools, learning tools and assessment tools, from pre-school through high school.

July 1, 1974

COMPONENT FOR OPEN SPACE SCHOOLS

Registration
Overview of course content - Marion Simons
1. Objectives
2. Schedules
3. Requirements

Philosophy of Open Education - Edith Smith
1. Piaget
2. Charles Silberman
3. British Infant School

Film - A Child Went Forth

Introduction to Brookland Conceptual Plan

Superintendent's 120 Day Report - Shirley Hammond
Overview of Brookland School Philosophy
Panel of Discussion
Continuation of Brookland School Philosophy
Small Group Discussion
Group I - Grouping
Discussion Leader - Gloria Jackson
Group II - Positive Attitudes
Discussion Leader - Grace Bello
Group III - Child Centered
Discussion Leader - Ruby Mincey
Group IV - Team Teaching
Discussion Leader - Thelma Campbell
Group V - Integrated Day
Discussion Leader - Winifred Jackson
Reporting & Interaction - Group Recorder
Group VI - Parental Involvement
Discussion Leader - Willa Rivers

Group VII - Flexibility
Discussion Leader - Rosemary Collins
Group VIII - Behavior Modification
Discussion Leader - Yvonne Jones
Group IX - Self-Pacing
Discussion Leader - Mary Cooke

July 2, 1974

Human Relations
Consultant - Joseph McIntyre, Asst. Principal
Middle School
Md.

Discussion Period

July 3, 1974

Behavior Modification
Consultant - Nelson Zahler
Hillcrest Center

Discussion Period

July 4, 1974

Holiday - Fourth of July

July 5, 1974

Introduction to Learning Station
1. Concepts
2. Components
3. Construction

Introduction to the Team Approach
Marion Simons
1. Role of Teams
2. Formation of Teams
3. Selection of Tentative Team Leader

Week 2
July 8, 1974

Shirley W. Hammond - Introduction to Individualized Programmed Curriculum Materials and Equipment

AAAS - Science A Process Approach
Consultant - Mrs. Irene Morris

July 9, 1974

SRA - Reading
SRA - Reading Program
Consultant - Mrs. Louise Trawick

July 10, 1974

Media Workshop
Consultant - Media Center

July 11, 1974

Hoffman Mark IV
Consultant - Mr. Albert Siegfried
Construction of Stations
Mrs. Delores Carter
Mrs. Grace Bello
Mrs. Naomi Waddleton

July 12, 1974

Ginn 360 Project
Consultant - Dr. Gloria Horworth
AVS 10 - Mr. Hiram Graham
Fiedler Co.- Social Studies

Week 3

Scheduling Procedures In Open Space

July 15, 1974

Introduction to Evaluation
Consultant - Dr. Sol Paretore
Question - Answer Period
Film: "The British Primary School"
Continuation of Learning Stations
Continuation of Team Approach
Designing of Stations in Teams

July 16, 1974

Introduction to Scheduling
Mrs. Edith Smith
Mrs. Shirley Tyler
Mrs. Ruby Mincey
a. Purpose
b. Types
1. Master Schedule
2. Individual Pupil Scheduling
Meet with Instructional Teams to Prepare Tentative Schedules
a. Master Schedule
b. Individual Pupil Schedule

July 17, 1974

Math In Open Space
Dr. Vivian Howard
Diagnostic - Prescriptive Teaching
Designing T.L.U.(s)
Mrs. Shirley Tyler
Learning Activity Packages
Mrs. Grace Bello

July 18, 1974

(To Webb Center)

Construction of Learning Stations
- Floor Planning
  - Mrs. Grace Bello
  - Mrs. Delores Carter
  - Mrs. Naomi Waddleton
- Furniture Arranging (Organization of Space)
  - Dr. Marion Simons
  - Mrs. Shirley Tyler

July 19, 1974

Management And Behavior In Open Space
- Dr. Marion Simons

Roles And Responsibilities In Open Space
- Mrs. Ruby Mincey

Construction of Stations
- Mrs. Delores Carter

Week 4
July 22, 1974

Planning for Closing Activity
Continue to Build Stations

July 23, 1974

Learning Station in Construction
Teaming in Open Space
- Dr. Mildred Griffiths

Coding, Indexing and Planning
- Mrs. Edith Smith
- Mrs. Shirley Tyler

July 24, 1974

How To Make Learning Activity Packages
- Dr. James Wolfe

Team Meetings and Planning

July 25, 1974

Individual and Team Sharing of Learning Stations and LAPS

Evaluation of Training Program

July 26, 1974

Reporting on Plans for School Year 74-75
- Mrs. Shirley W. Hammond, Principal Brookland School

Closing Activity

Attachment B. An Example of a Program Description: Training Sites at Amidon and Malcolm X Schools

THE TRAINING SCHEDULE FOR CYCLE VII

FIRST DAY

A.M. TRAINING PROGRAM OBJECTIVES

- To Individualize and Personalize Instruction and Learning
- To Adapt and Create Curriculum
- To Function Effectively as Members of Varied Teams
- To Acquire New Behaviors in Open Space
- To Acquire and Accept New and Different Roles

ROLES AND RESPONSIBILITIES

- Panel Discussion - - - - - - Coordinator
  Special Resource Teachers
  Team Leader
  Counselor

Break

THE TEAM PROCESS

- Organization of Team
- Team Planning

Film - Team Teaching

- . Discussion
- . Small Group

Lunch

P.M. ORGANIZATION OF SPACE

- By Teams
- Mark Up
- Furniture
  - . Arrangement
  - . Uses
  - . Kinds
- Flexible Use of Space
  - . Committed Areas
  - . Uncommitted Areas
  - . Outdoor Areas

SECOND DAY

A.M. DIAGNOSING AND DEVELOPING CURRICULUM

- Learning Activity Packages (LAPS)
  - . Objectives
  - . Components
  - . Pre-Test
  - . Post Test

Break

- Diagnostic Procedures
  - . Interests/Background
  - . Social Emotional Behavior
  - . Student Learning Styles

P.M. TEAM ACTIVITY
- . Family Areas
- . Workshop Activities

THIRD DAY

Human Relations

Consultant

FOURTH DAY

A.M. MANAGEMENT AND BEHAVIORS IN OPEN SPACE
- Teachers Behaviors
  - . Voice Control
  - . Positive Attitudes
- Teacher/Pupil Behaviors
  - . Noise Level
  - . Movement (purposeful)
  - . Visual Distractions
  - . House Keeping
  - . Establishment of Rules

Break

Film - Critical Incidents (Discussion)

P.M. ALTERNATIVE RECORD KEEPING PROCEDURES IN OPEN SPACE
- Diaries (Student - Teachers)
- Indexing and Filing
- Student Record Activity
- Student Contracts
- Task Record Cards
- On-Going Curriculum Development Guides
- Student Record Folders

FIFTH DAY

A.M. FLEXIBLE SCHEDULING PROCEDURES
- Master Schedule
- Student Schedule

P.M. EVALUATION OF TRAINING

ADDITIONAL SEMINARS

1. Conference Techniques
   - Designated Conference Area
   - Reporting to Parents
   - Individual/Student/Teacher
2. Creative Teaching Techniques
   - Mini-Demonstrations in the Use of Media to Personalize Learning
     - . Tape Recorder
     - . Language Master
     - . Overhead Projector
     - . Pacer
     - . Technicolor Loop Projector
     - . Carousel Projector
     - . Borg - Wagner
     - . Record Player
3. Flexible Scheduling
   - Structured Schedule for Self-selected Activities
   - Structured for Directed Activities
   - Organization of Time Blocks to Promote:
     - . Unscheduled Self-selected Activities
     - . Unscheduled Directed Activities
   - Components of Scheduling
     - . Master (Structured)
     - . Family (Structured)(Unstructured)
4. Application of Technological Media - Hands-On-Workshop to Gain Technical Skills in the Operation of Various Media
   - Traditional and Innovative
     (Use a checklist of Various Media. Teachers can check off the ones they need to learn how to operate)
     - . Language Master
     - . Tape Recorder
     - . Overhead Projector
     - . Opaque Projector
     - . Carousel Projector
     - . 16 M Projector
     - . Dry Mount Press
     - . Thermofax Machine
     - . Using "U" Film
     - . Veri-Tech
5. Review - Record Keeping Procedures in Open Space

Attachment C. An Example of a Program Description: Training Site at Webb School

SCHEDULE

Summer Training Program - R. K. Webb Training Site

Monday, July 1

8:30 - 9:15	Welcome
9:15 - 10:00	Informal introductions
10:00 - 10:30	Humanizing the elementary schools
10:30 - 11:00	Coffee Break
11:00 - 11:40	Film
11:40 - 12:30	Announcements

Tuesday, July 2, 1974

8:30 - 9:00	"Get more acquainted bingo"
9:00 - 9:30	Discussion: Objectives
9:30 - 10:00	Film TCOSS Cycle II
10:00 - 10:30	Control Variables
10:30 - 11:00	Coffee Break
11:00 - 12:00	Roles and responsibilities
12:00 - 12:30	Discussion

Wednesday, July 3, 1974

8:30 - 8:45	Georgia's Bag
8:45 - 9:30	Roles and Responsibilities (continuation)
9:30 - 10:00	Small Group Discussions
10:00 - 10:30	Putting it all together
10:30 - 11:00	Coffee Break
11:00 - 12:15	Role playing
12:15 - 12:30	Learning is ...

Friday, July 5, 1974

8:30 - 9:00	Learning is ...
9:00 - 9:30	The Team Process
9:30 - 10:00	Film
10:00 - 11:00	Small Group Discussions
11:00 - 11:30	Coffee Break
11:30 - 11:45	Large Group Session
11:45 - 12:15	The Name Game
12:15 - 12:30	Rap Up

Monday, July 8, 1974

8:30 - 9:00	Georgia's Game
9:00 - 9:30	Shaping the Physical Space
9:30 - 10:45	Shape your space as a family area
10:45 - 11:15	Coffee Break
11:15 - 12:00	Evaluation of shaped areas
12:00 - 12:30	Slides and Photographs

Tuesday, July 9, 1974

8:30 - 8:45	Observation Game
8:45 - 9:15	An overview of individualization; an introduction to stations
9:15 - 9:45	Objectives, task cards and indexing
9:45 - 10:15	Using media in constructing stations
10:15 - 10:45	Coffee Break
10:45 - 11:30	Planning in School Teams
11:30 - 12:15	Hands-On Activities
12:15 - 12:30	Rap Up Session

Wednesday, July 10, 1974

8:30 - 8:45	Open space is ...
8:45 - 9:15	Registration
9:15 - 10:30	Creating an environment/construction of stations
10:30 - 11:00	Break
11:00 - 12:15	Construction of stations (continued)
12:15 - 12:30	Announcements

Thursday, July 11, 1974

Friday, July 12, 1974

8:30 - 9:15	Letter cutting - Pat
9:15 - 10:30	Construction of stations (continued)
10:30 - 11:00	Coffee Break
11:00 - 12:15	Station Work
12:15 - 12:30	Announcements

Group will alternate morning sessions with consultant, J.McIntyre

Monday, July 15, 1974

8:30 - 10:30	Dr. Brewington - Mediax Science Consultant
10:30 - 11:00	Coffee Break
11:00 - 12:30	Dr. Brewington

Tuesday, July 16, 1974

8:30 - 10:30	Mrs. Jocelyn Sampson - Mediax Consultant "Diagnosing"
10:30 - 11:00	Coffee Break
11:00 - 12:30	Mrs. Sampson (continued)

Wednesday, July 17, 1974

8:30 - 9:30	Let's Make Terrariums - Georgia
9:30 - 10:30	Construction of Stations
10:30 - 11:00	Coffee Break
11:00 - 12:30	Construction of Stations (continued)

Thursday, July 18, 1974

8:30 - 10:30 Dr. Vivian Howard - Mediax Math Consultant
10:30 - 11:00 Coffee Break
11:00 - 12:30 Dr. Vivian Howard

Friday, July 19, 1974

8:30 - 10:30 Announcements, Construction of Stations
10:30 - 11:00 Coffee Break
11:00 - 12:30 Construction of Stations (continued)

Monday, July 22, 1974

8:30 - 10:30 Behavior Modification - Dr. Wolfe - Mediax Consultant
10:30 - 11:00 Coffee Break
11:00 - 12:30 Dr. Wolfe (continued)

Attachment D. Pre-Test Questionnaire

BEHAVIOR SERVICE CONSULTANTS, Inc.
Box 186, Greenbelt, Maryland 20770
Tel: (301) 474-2146

Note: "Cycle VII" refers to the training in Open Space education offered in the D. C. Schools in the summer of 1974.

Dear Participant in D. C. Schools Cycle VII Program:

Below are a few questions about your past experiences in open education and your thoughts and expectations regarding the Training Center for Open Space Schools Cycle VII held in the Summer of 1974. Thank you for your help in evaluating the Training Center for Open Space Schools.

A. Cycle VII (Summer 1974) assignment. 1 - _____ ___
School (Training site) No.

B. Two (2) digit participant number 2, 3 - _____

C. Grade level assignment before Summer 1974. (One response only. If combination grade, check lower of two grades.)

4, 5 -
- 01 ___ prekindergarten
- 02 ___ kindergarten
- 03 ___ first
- 04 ___ second
- 05 ___ third
- 06 ___ fourth
- 07 ___ fifth
- 08 ___ sixth
- 09 ___ seventh
- 10 ___ eighth
- 11 ___ ninth
- 12 ___ other _____ (specify)

D. Anticipated grade level assignment starting Fall, 1974. (One response only. If combination grade, check lower of two grades.)

6, 7 -
01 ___ prekindergarten
02 ___ kindergarten
03 ___ first
04 ___ second
05 ___ third
06 ___ fourth
07 ___ fifth
08 ___ sixth
09 ___ seventh
10 ___ eighth
11 ___ ninth
12 ___ don't know
13 ___ other _____ (specify)

E. What are your previous experiences in open education prior to participation in Cycle VII? (multiple response permitted)

Experience	No. of Semesters
8___no experience	
9___visited open space	10___
11___visited open space facilities in England	12___
13___coursework in open space concepts	14___
15___had open classroom	16___
17___taught in open space	18___
19___participated as trainee in previous cycle	20___
21___participated as trainer in previous cycle	22___

F. How did you come to participate in Cycle VII? (multiple response permitted)

23 - 1___heard about it from colleagues; volunteered
24 - 1___wish to teach in open space; participation in cycle is necessary
25 - 1___school changing to open space participation recommended by administration
26 - 1___have been teaching in open space; felt in need of additional training
27 - 1___other _____ (specify)

Attachment E. Post-test Questionnaire

BEHAVIOR SERVICE CONSULTANTS, Inc.

Box 186, Greenbelt, Maryland 20770
Tel: (301) 474-2146

Open Space Training Cycle Questionnaire

Dear Participant in D. C. Schools Open Space Training Program:

Below are a few questions about your experiences, observations and suggestions regarding the Summer 1974 Training Cycle of the Training Center for Open Space Schools (TCOSS). Please feel free to write answers in addition to any of the responses requested in the format provided. Thank you for your help in evaluating the training program.

A. Cycle VII (Summer 1974) assignment.

1 - _____ ___
School No.
(Training Site)

B. Two (2) digit participant number (If can't remember, check here ___)

2, 3 - _____

C. Today's date

Month: 4, 5 - _____
Day: 6, 7 - _____
Year: 8, 9 - _____

D. How did you like the scheduling of Cycle VII? (one response for each part of question)

Part 1: Time of the year

10 - 1 ___glad it's in the summer
2 ___prefer training during school year
3 ___don't care

Part 2: Length of training cycle

11 - 1 ___training cycle not long enough
2 ___proper length
3 ___too long
4 ___liked 1/2 day sessions
5 ___did not like 1/2 day sessions
6 ___other_____
(specify)

Part 3: Anything else

12 - 1 ___other_____
(specify)

E. What do you think about the coordination of an outside training consultant program with the TCOSS program? (multiple response permitted)

13 ___felt it was very effective
14 ___would have preferred more time for TCOSS program
15 ___would have preferred more time for outside training consultant
16 ___other_____ (specify)

F. Which of the following training program aspects, in your opinion, were underemphasized, overemphasized or emphasized the correct amount? (one response permitted for each part of question)

		Under-Emphasized	Just Right	Over-Emphasized
17	Instruction Team Grouping	_____	____	_____
18	Family Team Grouping	_____	____	_____
19	Seminars	_____	____	_____
20	Diagnosing	_____	____	_____
21	Prescribing	_____	____	_____
22	Indexing	_____	____	_____
23	Scheduling	_____	____	_____
24	Developing Learning Activities, Stations and Centers	_____	____	_____
25	Using, Adapting Existing Materials, Equipment	_____	____	_____
26	Theory Behind Behavior Modification	_____	____	_____
27	Identification/Discussion of Positive Behaviors	_____	____	_____
28	Other (please specify)	_____	____	_____

G. Have you any suggestions or additional comments regarding the Summer of 1974 Training Cycle?

29. _____

_____

_____

_____

_____

_____

Attachment F. Site Visits

SITE VISIT SCHEDULE

Cycle VII

Date/Time	School	Purpose
Friday, July 5, 1974 9:30 a.m.	Malcolm X	Coordination of Evaluation Design
Monday, July 8, 1974	Amidon	Administration of Pre-test Observation of Workshop Activities
Monday, July 8, 1974	Langdon	Administration of Pre-test Observation of Workshop Activities
Tuesday, July 9, 1974	Malcolm X	Administration of Pre-test Observation of Workshop Activities
Wednesday, July 10, 1974	Webb	Administration of Pre-test Observation of Workshop Activities
Tuesday, July 16, 1974	Malcolm X	Observation of Workshop Activities
Wednesday, July 17, 1974	Langdon	Observation of Workshop Activities
Monday, July 22, 1974	Webb	Observation of Workshop Activities
Monday, July 22, 1974	Amidon	Observation of Workshop Activities
Tuesday, July 23, 1974	Malcolm X	Observation of Workshop Activities
Wednesday, July 24, 1974	Langdon	Observation of Workshop Activities
Thursday, July 25, 1974	Langdon	Administration of Post-Test Observation of Workshop Activities
Friday, August 2, 1974 9:00 a.m.	Webb	Administration of Post-Test
Friday, August 2, 1974 10:00 a.m.	Amidon	Administration of Post-Test
Friday, August 2, 1974 11:00 a.m.	Malcolm X	Administration of Post-Test

Malcolm X Elementary School Friday, July 5, 1974

We arrived at the school shortly after 9:30 A.M. After stopping in the office to find out where the training was taking place, we went up to the second floor and there met with the Director of TCOSS. She told us about the changes - 1/2 days, outside consultant, etc. - in the way the summer training was taking place in terms of the way it had been done in some previous cycles.

We met the principal of Washington Highlands, who introduced us to one of her teachers. This particular teacher has had the opportunity to gain a good deal of expertise in the area of prescribing and diagnosing. The principal expressed concern that these strengths be utilized for the benefit of others in the training program.

We were told that Washington Highlands, which is not yet ready for occupancy but will be by September 1, 1974, has a capacity of 978 pupils. It is a complex of four buildings, a Learning Center, a Health Center, a Recreation Center and a Community Center. The Community Building will house senior citizens, component, as well as human resources and other components.

Immediately after the coffee break, the Director requested that everyone come together in one area so that the pretest could be given. She gave a very pleasant introduction and then introduced us to the participants. The pretest took only about 10-15 minutes, after which the teachers regrouped into small groups to continue a discussion concerning the necessity for team effort and process in Open Space. They had been so involved in these discussions that it had taken three calls for them to stop working and have a coffee break.

One of the points the Director made was that it is less effective to have the training in a place other than the place where the teacher is going to be trained. She also stressed the flexibility of the training schedule, that teachers are offered choices and can make adjustments in the program as fits their needs.

The Principal of Malcolm X told us that she had written a proposal and had received funding for a Title III project entitled "Tutor Aide for Malcolm X". Students from junior and senior high schools would tutor Malcolm X children after school for school credit and a work stipend. The aide training was starting that very day. We went into the conference room where this training was being held, and we noticed that not only secondary school students but a few parents and teachers were also involved in this training.

Amidon Elementary School Monday, July 8, 1974

The pretest questionnaire was administered to the Amidon workshop participants the morning of July 8, 1974. The evaluators, accompanied by a coordinator from the D. C. Schools Office of Planning, Research and Evaluation, arrived at the school at about 10:20 A.M. We stopped by the Principal's office to inform her that we were in the school, but were told by an office assistant that she was upstairs in the training area.

(We later discovered that she participated on a daily basis in the training cycle activities).

The training was taking place in a second floor room which was not air-conditioned. As we entered the training area we noticed that despite the uncomfortably high temperature in the room, the participants were attentively listening to a presentation given by the Workshop Director. She was just finishing as we entered the room, and the trainees were preparing to disperse and move towards the refreshment area. Since it was time for their mid-morning break, we had a cold drink and chatted awhile with the Workshop Director until the end of the break period.

She told us that the trainers from Amidon (as well as the other sites?) meet with the TCOSS Director who is serving as Director of the Malcolm X Workshop, on a weekly basis to plan the schedule for the following weeks training. We also discovered that some of the participants from Ketcham were fourth grade teachers, who were participating in the Summer 1974 program because the 4th grade at Ketchum would be going Open Space in the fall.

A schedule of the days activities was given to us. It read as follows:

9:30 - 12:30	Display and Demonstrations of Stations
10:30 - 12:00	Instructional Team
11:00 - 12:15	Planning Time
12:15 - 12:30	Feedback

One of the bulletin boards in the Workshop Center contained a list of the objectives of the training program. They are presented here:

To individualize and personalize instruction and learning
To adopt and create a curriculum
To function effectively as members of varied teams
To acquire new behaviors in Open Space
To acquire and accept new and different roles
To evaluate the training workshop

There were already a few learning station place around the room - one was a reading station, another was entitled "Identifying A Family Area". A small bulletin board had words pertaining to Open Space concepts scattered across it for a kaleidoscope effect.

Prior to the administration of the pretest, we assigned identification numbers to the participants. In doing so, we discovered that three schools - Amidon, Bowen and Ketchum - were represented at the Amidon Workshop. Twenty-one participants completed a pretest questionnaire.

Langdon — Monday, July 8, 1974

The evaluators, accompanied by a program coordinator from the Division of Planning, Research and Evaluation, visited the Langdon Workshop to administer an early cycle questionnaire to the participants in the Open Space Workshop and to observe the workshop activities. We spoke briefly with the Principal before we went into the area where the workshop was in operation. The workshop director, who is part of the TCOSS

training staff, provided us with a tentative schedule which had been developed before Mediax was hired as outside consultant to the training program.

We discussed the projected plans for the new Brookland School with the Workshop Director, the Open Space Coordinator for Brookland and a teacher-trainer who was recently hired as the Assistant Principal of Brookland Open Space School. A comprehensive booklet, entitled Brookland School, had been developed by the faculty of the old Brookland School, and it formed a starting point for our discussion of the new Open Space facility. (The evaluators were given a copy of this booklet.) The Open Space Coordinator emphasized the involvement of Brookland teachers and the community in the planning of the new school. Some staff members visited England in an attempt to increase their knowledge of open education. The physical design of a facility appropriate to Open Space was researched by teachers and parents.

We were told that the staff was involved with the requisition of supplies and materials; the general feeling concerning the budget for the new school was that it was fair and permitted purchase of sufficient materials.

Brookland School will be unusual in that it is one of the few Open Space facilities in the area to include a 7th grade level; projected plans for the second year of operation call for the 7th grade students to continue on in Open Space to 8th grade level. It will also have a Dean of Student Affairs, who will serve as advisor and counselor to all students, as a full-time staff member.

The administration of the questionnaire took longer than had been anticipated by the evaluators. A reason for this was that the assignment of participant identification numbers to teachers was time consuming because of the number of schools represented. We discovered that over 40 schools were represented by participants in the Summer Training Program. Forty-two pretest questionnaires were administered.

The name of a suggested resource book was written on one of the blackboards in the Learning Center. It is Open Education by Ewald Nyquist. A presentation on science - "Science as a Process Approach" had been included in the morning's activities. An outline of the program listed on a board is as follows:

Science - A Process Approach

1. Observing
2. Classifying
3. Using Numbers
4. Measuring
5. Using Space - Time Relationships
6. Communicating
7. Predicting
8. Inferring
9. Defining operationally
10. Formulating Hypotheses

11. Interpreting Data
12. Controlling Variables
13. Experimentation

Before we left, we spoke about possible dates for return visits and discussed some of the presentations scheduled to take place on later dates. A consultant from Mediax was scheduled to come in the following week to present material on team process. Another activity planned for the same week was a presentation on scheduling by one of the trainers.

Malcolm X Elementary School — Tuesday, July 9, 1974

An evaluator, accompanied by a Program Coordinator from the D. C. Schools Division of Planning, Research and Evaluation, returned to Malcolm X to administer a pretest questionnaire to the Orr workshop participants. They had been in the middle of a human relations seminar the first time we visited, so this return visit to administer the pretest was scheduled.

The Director of the Orr Workshop told us that most of the participants were not available since they were at Orr School that morning. She suggested that we leave the questionnaires, with appropriate instructions, with her and that she would administer them to the group the first thing in the morning. We left the necessary materials with her before we left.

Webb — Wednesday, July 10, 1974

The evaluators, accompanied by a coordinator from the D. C. Schools Division of Planning, Research and Evaluation office, visited the training workshop at Webb School to administer an early cycle questionnaire to the participants. Approximately 80 participants are involved in the training at Webb. There are eight trainers, most of whom are working as a coordinator or teacher in an Open Space program. Some of the participants are teacher - aides, most of whom are affiliated with either the Career Opportunity Program or Bruce-Monroe. The rest are teacher - trainees who will be assigned to several different schools with the majority going to Bowen School, in the fall.

A schedule for the day's activities was posted on a bulletin board. It is presented here:

8:30 - 8:45	Open Space
8:45 - 9:15	Registration
9:15 - 10:30	Creating An Environment Construction of Stations
10:30 - 11:00	Break
11:00 - 12:15	Construction of Stations
12:15 - 12:30	Announcements

The Program Director asked the participants to group together to facilitate the questionnaire administration. Because of the large size of the group, the assignment of participant identification numbers took about 10 minutes. This increased the total administration time to about 30 minutes.

The evaluators briefly looked at the training area as the participants were regrouping in preparation for resumption of station construction activities. There were some very nice displays and stations throughout the Center; the Workshop seemed to be well-planned.

Malcolm X Elementary School — Tuesday, July 16, 1974

The Director of the workshop was just getting ready to leave when I arrived. I briefly spoke with her and told her that I would like to observe the monring's activities.

A Mediax consultant was giving a presentation on learning modules or packages when I arrived. A movie on this subject which seemed designed as a teaching aid (that is, it contained time slots allotted for discussion) was just beginning. It described some of the differences between a traditional and a learning module approach to teaching, such as a difference in focus and emphasis of instruction. Two of the learning module characteristics stressed were: 1) the emphasis is on the learner, not the instruction and 2) the instruction is individualized, not geared toward a comparison of student achievements.

Several of the teachers seemed to be paying scant attention to the presentation. It may be that the size of the group, with many participants sitting on the fringe of the group resulted in an atmosphere which made attentiveness difficult.

A second presentation, dealing with the science process, was used as an introduction to the activities which were scheduled for later in the morning. These activities consisted of training in the scientific method through various exercises in classifying and predicting, using various materials and displays brought by the Mediax consultant. One of these exercises consisted of watching a burning candle and making as many observations as possible. Another task involved classification of a variety of small objects contained in a plastic bag.

The plan was for the teachers to break into small groups and work at the various tasks. I did not actually see this happen, as I left after the morning break. I stopped by the office on the way out to pick up the pretest questionnaires which had been left for the Orr participants on a previous visit.

Langdon — Wednesday, July 17, 1974

Everyone, trainers and trainees alike, was working with materials for the development of learning stations and schedules when the evaluator arrived. After briefly greeting the Workshop Director, the evaluator looked at the activities of the various groups of participants as well as the training materials posted or spread throughout the center.

The schedule for the day was posted on a bulletin board. It included three major tasks, and it was developed to allow a teacher-trainee to work at her/his own speed at each of the tasks. One of the tasks was a carry over from the previous day's activities, which permitted those people who wanted to continue working on the specific task (in this case, development of master schedules) to do so.

The last activity of the morning was to be a Question and Answer Period, during which the trainers were to respond to questions concerning Open Space which the trainees had submitted as part of an earlier seminar. Some of the questions, which the evaluator copied from a master list, were: When the needs of a student change, will he move from team to team or group to group? What effects will the schedules of special resource teachers have on the daily academic program? How will teams coordinate with each other?

The point was made by both the Workshop Director and one of the trainers that the teachers from Brookland had very definite expectations about what they wanted to get out of the training program, and that they seemed to plan and work together in a positive way to achieve their goals. Since a fair amount of the program was geared specifically to the Brookland Open Space Program (for example, instruction in computerized learning), we were told that the trainers were trying to individualize the workshop program for those teachers going to schools other than Brookland.

Most of the teacher-trainees were working in small groups. Most were building learning stations; a few were doing additional work on the development of master schedules. Each teacher was required to build one team station and had the option of doing one individual station during the course of the training cycle.

One group was building a simulated master schedule for 8 and 9 year olds. As the evaluator was observing the group's activity and interactions, a trainee who was a special resource teacher came up and gave the group a list of the children she would be working with in the fall. They were therefore able to incorporate this activity into their master schedule.

Four teachers were in the process of putting the final touches on a station entitled "Getting to Know You". It included five different tasks; two involved use of audio equipment. Its purpose was to introduce students to each other and to the new grade level. The teachers appeared to have a good working relationship with one another. One teacher said, "I don't like that", to another teacher's suggestion, and the entire group was able to use the comment in a positive fashion as the impetus for reviewing discussion of a particular idea.

The evaluator was told that she would find some of teachers in a second floor learning center. It had originally been the main workshop area, but ventilation problem caused the majority of the teachers to move to the first floor. About 6 - 10 teachers elected to continue working in the original Workshop Center since they had already gotten comfortable with the space.

Two small rooms adjacent to the 2nd floor center were set up as Training Rooms. One was for instruction in the use of Westinghouse Learning Corporation (PLAN), which helps a teacher design an individualized program for each student through use of Teacher Learning Packages. A week long workshop had been conducted by people from Westinghouse at the beginning of the Training Cycle.

The second room was used as a training area for the station approach to teaching. A small pre and post test about station development and use had been administered to the participants when they spent in this training room.

Two teachers were working on a science station. They were using science fiction characters as a theme for the station, which was designed to increase a student's knowledge of scientific equipment. The participants appeared to be working diligently. Everyone seemed enthusiastic about the work they were doing. The morning's activities seemed representative of much of the workshop's program, with seminars, presentations and activity periods based on presented materials comprising a good part of the schedule. Children would not be involved in the Workshop at Langdon (this is also true of all other Summer 1974 workshops). The training program at Langdon seems to be well organized and running smoothly.

Amidon Elementary School Monday, July 22, 1974

One of the trainers was just finishing a presentation on the construction of the learning environment when I arrived. She was reviewing some notes on the family area which she had written on the board. They are included here:

The Family Area

A. Definition of the family area
B. Creating a responsive environment in the family area
    1. Family name
    2. Alphabets
    3. Calendar
    4. Months
    5. Days of the week
    6. Special interest center

A large bulletin board depicted an example of a family theme. It was"Sly and the Family Stones", and was very colorful and appealing.

After the presentation most of the teachers left to work in other rooms, since the remainder of the morning was to be spent constructing learning stations. The teachers were going to work in small groups, according to their particular subject area of interest. The main instructional area seemed to be used as a resource or additional workspace area, since most of the teachers were building their stations in nearby classrooms.

One of the instructional stations in the main area was entitled "Diagnostic instruments". Pamphlets about standardized tests were nicely displayed as part of the station. A list of diagnosed tests was posted. Among the diagnostic tests for math that were listed were: Comprehensive Test of Basic Skills (CTBS), Mathematics Instructional Level (D.C. Public Schools), Diagnostic Math Tests by General Learning Corporation, and the Prescriptive Math Inventory.

The hall also contained several stations. One of particular interest dealt with the tasks of the Open Space Coordinator, and was entitled "My Eight Arms". It very clearly delineated the role of the Coordinator.

Several teachers were constructing science stations in the hall. They had completed several and were working on a station entitled "You Will Be Able to Locate Bodies of Water and Parks". It contained several tasks, all of which seemed to deal with reading a map and getting familiar with the location of different places.

One of these teachers works is part of an Open Space program in another school. I spoke at some length with her about her thoughts concerning the similarities and differences of this training cycle to others in which she had participated. She felt that both the trainers and the teachers "had to put more into it" because of the shortened day. She also said "and then of course, there's Mediax", but declined to comment further.

On my way into another room, (which was being used as the reading and math station construction area) I met the Program Director, who was circulating among the various groups of workers. She mentioned that there were very few teachers from the lower grades among the participants. She stated that she has found that stations geared toward younger children tend to be brighter and more esthetically appealing than those geared toward children in the higher grades. She said that the participants of this workshop were also aware of this, and were making an effort to make their stations, which were for 3rd - 6th grade children, as attractive as possible.

The math and reading area contained 14 stations. As in most of the schools that we visited, a lot of emphasis is placed on the math and reading skills. All of the workers were very engrossed in what they were doing. One teacher was showing another how to make large number illustrations on the blackboard. I think that some of the displays and stations in this area will be left as part of the learning environment when school resumes in the fall. A lot of the stations involved the use of audio equipment. For example, the instructions for Task I of a specific language station read as "Take a worksheet, Turn on the recorder, Listen to the Words, Write the first sound you hear for each word, check your work with key to Task 1". Some of the other stations had to do with word usage, telling time, and math skills.

Toward the end of my visit, I spoke with the Workshop Director. She felt that the teachers "had picked up the team concept very nicely", which was particularly valuable since some of the participants were actually working with the teams that they would be working with in September. She mentioned that each teacher would be responsible for constructing five stations, the first as part of a team effort, the rest would be individual work. She thought that the teachers would find this enjoyable.

Her biggest concern was that the buildings in which the teachers would be working in the fall were not yet completed. She was very disappointed that the workshop could not have been held in the schools where teachers would be working, since she felt that training in an area that you would teach in would be very rewarding. The teachers could then say "this is my area" and "this is what I did in the training program".

All the participants had a piece of tape on their wrist, on which they each kept track of all the positive or negative interactions they had with other participants. I was told that the idea for this was a result of their seminar on behavior modification. It seemed to be working out quite well.

Before I left, the Director and I scheduled a day for a return visit to administer the posttest questionnaire.

Ruth K. Webb School — Monday, July 22, 1974

Time of Visit: 9:30 A.M. - 12:30 P.M.

I met an Open Space Coordinator from another school on my way up to the Open Space Center. I met the Workshop Director there, and a behavior modification consultant from Mediax who was giving a presentation. Mediax has not delivered the teacher stations yet, but promised them for next week. Webb's Open Space Coordinator gave me a list of the eight TCOSS staff members at R. K. Webb Center. She then gave me permission to write out or to copy their schedule up to that date, which is appended as Attachment in the Attachment Section of the Summer 1974 Cycle Final Report.

The TCOSS requirement merges with the requirement of the University of Bridgeport, Connecticut, from which these teacher-trainees are getting credit. In order to get credit they have to put together five learning stations and it appeared they were well on their way to doing a good job. It looked like the general TCOSS program was of good quality. The Mediax consultant was a dynamic lecturer; he had transparencies to present on behavior modification as well as a film on time out.

The morale was high. The participants did not necessarily seem to be following their program for the summer, but they were following a program which was at least an improvement over an already well developed training program. The morning was constructive in the sense that the consultant was doing a good job and there was evidence that a number of activities had produced good results. In general, the program seemed to be moving well.

Malcolm X Elementary School — Tuesday, July 23, 1974

A presentation on basic principles of behavior modification was scheduled to be given by a consultant from Mediax as the main activity of the day. When the evaluator arrived, the consultant was talking about building and maintaining new behaviors.

The following is a rough outline of the material presented:

1) Building new behaviors
2) Maintenance of behaviors
3) Bribery
4) Intrinsic and extrinsic motivation
5) Reinforcement
6) Shaping
7) Control
8) Initiation of a behavioral program
9) Modeling
10) Teaching strategies
11) Contracting
12) Strengthening behaviors
13) Decreasing frequency of a behavior
14) Time out, (a film related to this topic was shown)
15) Comments

The material was very well presented, and seemed to hold the interest of most of the participants.

I spoke with the consultant, who told me about the 24 teacher teaching stations which Mediax is constructing for use this fall in seven Open Space schools. The stations will have the following: 1) Objectives and pretest, 2) Audio-visual presentation of specific subject matter, 3) Application, 4) Review, 5) Evaluation and post-test. Each school shall receive each station and shall keep them as part of their permanent teacher-training materials.

After the presentation, the Workshop Director announced that the Teacher Store, an organization that sold learning games and teaching materials, would be coming the next day. She said that a certain amount of money would be available for team purchases if the teams wanted to get together and review their needs for the fall.

A great number and variety of learning stations were set up around the Learning Center. Many levels were represented. Some stations were appropriate for first and second grade level children, others for sixth grade level. They seemed to be well planned and well executed, all progressing from a simple behavioral skill to a more complex one within a particular area. All subject areas were represented.

One of the language stations was called "A, B, C, Order"; its primary task was to arrange parts of a story in order. Another station involved building words by putting vowels in blank spaces.

A math station of particular interest was called "Tighten Up on Parts", with five tasks related to fractions. The activities of drawing and cooking were used as a vehicle for teaching a child about fractions. For example, measurement of ingredients for a barbecue sauce involved knowledge and use of fractions.

Although the participants seemed to be able to interact with each other in a warm friendly manner, it may be that the fact of having two separate workshop groups on two different floors tends to hinder group process and cohesiveness. However, the participants did seem to have become better acquainted with each other since our last visit, and there was a lot of social exchange during the morning break period.

Langdon Wednesday, July 24, 1974

The evaluator arrived at Langdon at 9:00 A.M. with expectations of observing TCOSS training activities. Apparently communication had not been clear concerning what would be happening that morning. The evaluator was surprised to discover that a consultant from Mediax would be lecturing on learning packages. The Workshop Director was of the understanding that the evaluators were scheduled to visit the following day in order to administer the post cycle questionnaire to the participants. The evaluators had not been aware that the Langdon Workshop would be over in two days; they immediately scheduled a return visit (since they did not have the necessary materials with them for the questionnaire administration) for the following day in order to insure participation of the Langdon group in the posttest.

Before leaving, the evaluator sat in on the Mediax consultant's presentation. The content and organization of the presentation were good.

Langdon Thursday, July 25, 1974

The participants had spent the morning evaluating the workshop, and were watching a videotape of their morning's activities when the evaluator arrived. Presentations on various training aspects had been made by several participants; among them was a presentation on the PLAN (computerized learning) approach made by a teacher from Glebe School, where the program is already in operation. Since Brookland will be using the PLAN approach in the fall, one of the main components of the Workshop for the Brooklnd teachers was training in use of the PLAN approach to individualization.

The evaluator spoke with a participant who teaches at a self-contained Junior high school which is located near Brookland School. This teacher had made a presentation on learning stations which are geared toward 12 and 13 year olds. She expressed concern for a need for more attention to Open Space for older children, sees Open Space as a way of decreasing dropout rate of students. She had volunteered for the Summer of 1974 learning program, but had almost quit after the first few days. One of the trainers persuaded her to continue, and she feels that staying with the program was a wise decision. She had a great many positive things to say about the Workshop, such as "It was handled well, there was good fellowship."

The participants were completing a training program evaluation survey developed by the trainers; since they were already grouped together, it seemed to be an appropriate time to administer the posttest questionnaire. The administration took about 15 minutes. One or two participants had not been available for the pretest, but were asked by the evaluator to respond to the posttest anyhow.

Before leaving, the evaluator spoke with the Director of the Workshop. One of the issues discussed was the decision not to have children in for part of the training program. The Director felt that although the presence of children adds a sense of reality to the training time limitations of the summer schedule and the necessity of bussing Brookland children to the training site did not make the inclusion of children feasible. She reported that the trainers had agreed that all their training program objectives had been met, and that they felt very positive about the ability of the participants to work as team members. She did say that it was very disappointing to everyone not to be trained in the environment they will be working in next fall. She felt it does make a difference in participant motivation and ability to relate to their surroundings, but that taking the fact that it was off-site into consideration, the training went well.

Amidon

Friday, August 2, 1974

An evaluator and a program coordinator from the D. C. Schools Division of Planning, Research and Evaluation visited Amidon to administer the posttest to the training cycle participants. The participants were just finishing some cleaning up and putting away of materials, and were beginning to sit at tables in preparation for taking the posttest. They were very cooperative, the atmosphere was very conducive to concentration on filling out a questionnaire.

The Director of the Workshop offered to show us a few very special stations in another room that had not yet been taken down. On our way out the door we noticed on the board a list of nine items for teachers to keep in mind at the beginning of the school year. The list was well thought out and executed, and is typical of the training which seems to take place at this particular center. The list is presented below.

The title was: "What to do in September"

1) Give inventory test
2) Name families
3) Make special interest stations
4) Make rules for using stations (state in positive terms)
5) Make rules for using restrooms
6) Give teacher-made test
7) Make stations for permanent centers based on test results
8) Train station managers
9) Introduce small groups of children at a time to a station

The stations in the other room were, for the most part, for non major subject areas such as music and art. This was interesting, since usually station emphasis is on math and reading skills. It was good to see some emphasis on other areas in addition to major subject emphasis. One of the art stations stations was called "The Magic Tree". It included six main tasks, and its purpose was to make fall, winter, spring and summer trees. The tasks included drawing a tree, cutting and pasting to make a tissue paper tree, reading a poem about a tree and learning about the uses of materials from trees. It was a most attractive and well-planned learning station.

The Director of the Workshop mentioned that the principal of Amidon had participated fully in the training on a daily basis, and had constructed five stations on her own or as part of a group. The Director commented that the training had gone well and that she felt she had achieved the major program objective of preparing this group of teachers to go into an Open Space setting in the fall.

Malcolm X Elementary School — Friday, August 2, 1974

A final visit was made to Malcolm X on August 2, 1974 to administer a posttest questionnaire to the participants of both the Orr and Washington-Highlands Workshop. When the evaluator and the program coordinator from the D. C. Schools Division of Planning, Research and Evaluation got to the Learning Center where the Washington-Highlands Workshop people were, the Director and a few other trainers were collating, stapling and putting together packets of materials. We assumed that these would then be distributed to the teachers.

All of the stations which had been scattered about the area the last time we visited were gone. The teachers had been making many trips to the schools that they will be teaching in the fall to deliver to these schools the stations that they had constructed during the summer.

We started distributing the questionnaires to the teachers who were already present with the idea of catching the others as they came in. There was a bit of running around as new teachers came in, but on the whole the administration of the posttest to the Washington-Highland's workshop participants went very well.

We then went upstairs to the floor above to see what Orr workshop teachers we could find. Most of the teachers were not there, since on both floors teachers were preparing for some kind of "end of training" celebration. However, we located about seven teachers, who sat down and filled out the questionnaire willingly even though they obviously were quite busy. At one point while they were completing the questionnaires, one of the teachers said something about the teachers' contracts should be signed before the training starts".

Several others voiced approval of this idea and requested their questionnaires back to add that item. The evaluator pointed out that the work was not supposed to be collaborative, but she did return the questionnaires to the people making this request.

After collecting all the questionnaires from both floors, we left the school.

Webb Friday, August 2, 1974

The participants were compiling booklets containing a listing of all the learning stations developed by the teachers during the workshop. The Workshop Director later told me each person would be able to take a booklet home for future reference. Each participant had built five stations (although it was obvious that most of them had already been taken home by the participants), so the booklet was a valuable reference source for the teachers.

Although the Workshop Director appeared extremely busy, she took time to welcome me and fill me in on the morning's schedule. Since the teachers were almost finished collating and stapling, we decided to wait another fifteen minutes before administering the questionnaire so that they could complete their task. While waiting, I spoke with a teacher who remembered me from a previous visit. She said that everyone was prepared to celebrate today, since all the work was in and everyone felt that things had gone well with the Workshop. Another teacher mentioned that she enjoyed the TCOSS training, but "if you want an honest answer, Mediax was boring". The presentations, especially the math presentation were repetitive for the most part, although some of the materials used in conjunction with the verbal presentation were decent.

At this point, the Workshop Director signalled to me to begin passing out the questionnaires. I planned to return to this teacher and the conversation later on in the morning; however, I never did.

Several participants had not taken the pretest, but they participated in the posttest anyhow. Most of the participants finished in about 15 minutes. Several participants asked for an explanation of a portion of the question dealing with the scheduling of the program. It may be that its placement on the second page (without the other parts of the question which were on the first page) was confusing or perhaps the question was not worded clearly.

After all the participants had completed the questionnaire, the Workshop Director and I talked about the training and her feelings about it now that the Workshop was over. She felt that the participants had worked nicely. She expressed displeasure with the involvement of Mediax, saying that many of the speakers had been unorganized. She mentioned that during one presentation by a Mediax consultant in particular, she, as Workshop Director, had a difficult time holding the participants at the Workshop Center and attempted to do so only out of courtesy to the speaker. A major complaint seemed to be that most of the speakers had nothing new to tell the participants. As we were speaking, we were walking over to the exit door. As we passed a table

where several trainers were setting, the Director asked them if they had anything to add to her comments. No one did, and since they had a busy morning ahead of them, I left. There were still several displays posted on walls and bulletin boards around the center. The title of one particular display was "Paths to Openness", and it included a delineation of the role of coordinator, principal and teacher in an Open Space setting. The role of teacher, as described in the display, is presented here:

What is the Role of "Teacher"?

Each teacher will be grouped with a family of 25 - 30 students.

She will:

1. Serve as the medium of communication between parents and school.
2. Guide each child's academic growth
3. Provide leadership to the family group that is responsible for making an interest area.
4. Serve as instructional leader

Table I

Previous Experience in Open Education

Prior to Participation in Cycle VII

Pretest Question E Type of Previous Experience	PARTICIPANT RESPONSE NO		YES	
	Frequency	Percent	Frequency	Percent
No experience	160	81.2	37	18.8
Visited Open Space	64	32.5	133	67.5
Visited Open Space Facilities in England	188	95.4	9	4.6
Coursework in Open Space Concepts	123	62.4	74	37.6
Had Open Classroom	141	71.6	56	28.4
Taught in Open Space	139	70.6	58	29.4
Participated As Trainee in Previous Cycle	156	79.2	41	20.8
Participated as Trainer in Previous Cycle	187	94.9	10	5.1

Table II

Percent of Participants at the Beginning of the Training Cycle Who Endorsed Specific Training Skills as Being Relevant and Worthy of Emphasis

PRETEST Question J Training Skills	PARTICIPANTS WHO RESPONDED "YES"	
	Frequency	Percent
Organization of Space and Equipment	149	75.6
Team Process	158	80.0
Diagnosing & Prescribing	117	59.7
Leaning Station Development	151	76.6
Individualization	130	66.3
Scheduling	147	74.6
Indexing Materials	93	47.2
Record Keeping	107	54.3
Theory & Practice of Behavior Modification	117	59.4
Don't Know	5	2.5
Other	7	3.6

Table III

Participant Reaction To Time of the Year of Training Cycle As Stated Early in the Cycle

Pretest Question H (Part 1) Time of Year	Training Site				
	Amidon	Langdon	Malcolm X	Webb	Sums
1. Glad it's in the summer	18	28	52	52	150
2. Prefer training during school year	0	9	20	8	37
3. Don't care	2	4	1	0	7
No response	1	1	4	1	7
Sums	21	42	77	61	201

Table IV

Participant View of Length of Training Cycle

As Stated Early in the Cycle.

Pretest Question H (Part 2) Length of Training Cycle	Training Site				
	Amidon	Langdon	Malcolm X	Webb	Sums
1. Training cycle not long enough	0	3	12	4	19
2. Proper length	14	26	47	51	138
3. Too Long	5	8	4	3	20
4. Other	2	3	7	0	12
No response	0	2	7	3	12
Sums	21	42	77	61	201

Table V

Change in View of length of Training Cycle From Early in the Training Cycle to Immediately After the Training Cycle Ended.

Pretest Question H (Part 2) Length of Traing Cycle	Postest Question D (Part 2) scheduling of Training Cycle			
	1. Training Cycle not long enough	2. Proper Length	3. Too Long	Sums
1. Traing Cycle not long enough	1	1	0	2
2. Proper Length	4	21	7	32
3. Too Long	0	2	4	6
Sums	5	24	11	40

Note: No Chi Square calculated since frequencies are too small.

Table VI

Percent of Participants Rating Specific Training Aspects As Underemphasized, Just Right, and Overemphasized at the End of Training Cycle

Post test Question F	Participant Rating					
Training Aspects	Under-emphasized	Just Right	Over-emphasized	Invalid Response	Row Sum	No Response
Instructional Team Grouping	9.7	89.0	1.3	0.0	100.0	3.8
Family Team Grouping	8.5	90.2	1.3	0.0	100.0	4.4
Seminars	21.1	67.6	10.6	0.7	100.0	11.3
Diagnosing	34.4	64.2	0.7	0.7	100.0	5.6
Prescribing	31.3	66.7	0.0	2.1	100.1	10.0
Indexing	22.9	75.2	0.0	2.0	100.1	4.4
Scheduling	24.2	73.2	2.0	0.7	100.1	4.4
Developing Learning Activities, Stations, & Centers	11.8	82.2	5.9	0.0	99.9	5.0
Using, adapting existing materials, equipment	16.4	82.2	1.3	0.0	99.9	5.0
Theory behind behavior modification	13.2	83.6	3.3	0.0	100.0	5.1
[illegible]sion	8.8	89.8	1.4	0.0	100.0	8.1
[illegible]	7.1	92.9	0.0	0.0	100.0	82.5

: refers to a multiple response given to a category for which a single response

Table VII

Comparison of Number of Participants Endorsing Specific Skills as Worthy of Emphasis at the Beginning of the Training Cycle with the Participants Rating These Same Skills as Underemphasized, Just Right and Overemphasized at the End of the Training Program

Pretest Question J	Posttest Question F Reaction to Training Aspects at End of Cycle				
Specific Training Aspects Endorsed as Worthy of Emphasis at Beginning of cycle	Underemphasized	Just Right	Overemphasized	No Response	Total
33. Organization of space & equipment (25. using existing materials)*	10	39	0	1	50
34. Team process (17. instructional team grouping)	7	43	1	2	53
34. Team process (18. family team grouping)	5	47	0	3	55
35. Diagnosing and prescribing (20. diagnosing)	15	21	0	4	40
35. Diagnosing and prescribing (21. prescribing)	14	21	0	5	40
36. Learning station development (24. developing learning activities, stations)	6	39	4	3	52

Table VII

(Contd.)

Pretest Question J Specific Training Aspects Endorsed as Worthy of Emphasis at Beginning of Cycle	Posttest Question F Reaction to Training Aspects at End of Cycle				
	Underemphasized	Just Right	Overemphasized	No Response	Total
37. Individualization (20. diagnosing)	16	31	0	2	49
38. Scheduling (23. scheduling)	13	42	0	3	58
39. Indexing materials (22. indexing)	4	29	0	2	35
41. Theory & practice of behavior modification (26. theory behind behavior modification)	6	24	1	2	33
41. Theory & practice of behavior modification (27. Identification of Positive Behaviors)	4	27	0	3	34
43. Other (20. other)	0	1	0	2	3

*Parenthesized material corresponds to the numbering system and skill name used in posttest Question F.

TABLE VIII

Participant View of the Coordination of an Outside Consultant Training Program With the TCOSS Training Program as Rated at the End of the Training Program

Posttest Question E View of Coordination of TCOSS and Media Program	Participants Responding Affirmatively	
	Number	Percent
felt it was very effective	92	51.0
would have preferred more time for TCOSS program	53	29.0
would have preferred more time for outside training consultant	23	13.0
other	13	7.0
Total number of responses given by partidipants*	181	100.0

*Participants were encouraged to respond to each category separately, since the categories are not mutually exclusive. Thus, the total number of responses is greater that the total number of participants who responded to Question E.