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ABSTRACT

The purpose of this practicum is to improve the reading and mathematics achievement of pupils in grades 3, 4, and 5 in the Hartford, Connecticut, public school system by retraining teachers in techniques that include diagnosis and prescription of learning needs. A one-week training workshop for teachers was held, which emphasized open education concepts and individualized approaches. Part 1 or this report relates the background of the urban community of Hartford, Connecticut, and the first attempts at solutions for the steady decline of achievement in intermediate grades. It describes the implementation of an effective primary open education program and the implications of this program for the intermediate grade levels. Contained in this portion also is a description of the initial open education pilot programs conducted by the author. The second section details the objectives of this practicum. It contains a description of the procedures used to involve teachers and administrators in the planning. A description of the training program is also included. The evaluation design of the practicum is presented in Part 3. Results are presented in tabular form for each of the objectives. The final section summarizes conclusions and makes recommendations based upon an analysis of the data contained. Questionnaires and forms used during the project are contained in the appendixes. (SK)

IMPROVING LEARNING THROUGH TEACHER RETRAINING IN GRADES 3-5

By

Edwin M. Manson

Submitted in partial fulfillment of the requirements for the degree of Doctor of Education, Nova University.

Hartford Cluster

Dr. John Allison, Coordinator

Maxi II Practicum

February 15, 1976

February 15, 1976

TO: Director of Practicums
Nova Ed.D. Program for Educational Leaders

FROM: Edwin M. Hanson

SUBJECT: Maxi II Practicum

The following are professional colleagues in the Hartford Public Schools who served as observers for this Maxi II Practicum, Improving Learning Through Teacher Retraining in Grades 3-5.

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At the suggestion of Dr. Bryan, the title of this practicum has been changed from that on the original proposal.

INTRODUCTION

This practicum report is presented in four sections. Its purpose is to describe the procedures used to improve the reading and mathematics achievement of pupils in grades three, four and five.

Part I relates the background of this urban community, Hartford, Connecticut, and the first attempts at solutions. It also describes the implementation of an effective primary open education program and the implications of this program for the intermediate grade levels. Contained in this portion also, is a description of the initial open education pilot programs conducted by this author.

The second section details the objectives of this practicum. It contains a description of the procedures used to involve teachers and administrators in the planning. Also included in this portion is a description of the training program--its contents and operation.

The evaluation design of the practicum is presented in Part III. Results are presented in tabular form for each of the objectives.

The final section summarizes conclusions and makes recommendations based upon an analysis of the data contained herein.

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IMPROVING LEARNING THROUGH TEACHER RETRAINING IN GRADES 3-5

Urban Hartford's Educational Problems

The city of Hartford is an urban community with the myriad of problems besetting cities across the nation. The civil rights movement of the early and middle nineteen sixties brought a large influx of poor school-age children from the rural south into Hartford. This was compounded by a steady migration of white middle-class families to the suburbs. The combination of factors was reflected locally in a decline of standardized test scores especially in reading and mathematics. This downward trend persisted for slightly more than ten years with Hartford youngsters falling more than several years behind their suburban counter-parts.

Early Approaches to the Problem

The availability of federal Elementary and Secondary Education Act (PL 89-10) monies as well as special state funds for urban youngsters, triggered a plethora of programs, especially in reading. However, many of the programs were substantially of the same ilk and did not reach the pupil populace of our urban community. Essentially, the programs maintained a traditional approach relying upon teacher-centered lectures and basic teacher-paced groupings for

reading and math, though some change was made to multi-cultural material such as basal reading texts which were intended to depict minority groups, but merely shaded the skin tones of existing visuals of whites.

Using federal funds, the district embarked upon a dramatic long-range design which became known as Hartford '74,[1] to significantly change the traditional school system to one that would be responsive to the urban community which it served. As a part of this program, Hartford was an early advocate and leader of what began to be known as open education.

Primary Open Education as a Solution

The Hartford Open Education program was initially designed, piloted and implemented with state and federal funds. Because of initial success, the program was continued with Board of Education resources to encompass all kindergarten, first and second grade classes within the district. As conceptualized, the program combined the English Infant School and Montessori approaches so as to provide an invitational learning environment.

Design and Implementation of the Primary Program

Hartford's primary program presently focuses upon an open learning environment in which children operate independently, thus satisfying their unique curiosity and

1 Hartford '74: A Planned Program for Educational Progress, Hartford Public Schools, Hartford, Conn., 1969

their intellectual, social, emotional and physical needs on an individual basis. The structure is essentially experiential and is sequence centered. The content of the program focuses on the full development of the child's verbal and linguistic potential. This becomes the basis for the sequential mastery of reading, writing and language skills through experiences. The development of these skills may involve areas such as body movement, hand/eye coordination, and perceptual activities. The total program is directed toward optimizing the pupils' various learning styles and creating a flexible child-responsive "learning" rather than "teaching" environment.[2]

To implement the aforementioned concepts the school system committed itself philosophically and financially. Each primary grade teacher was paired with a full-time paraprofessional and together, each of these teams received three-weeks of open education training in the procedures and techniques which were essential for learning and implementing the program. In addition each team received one thousand dollars worth of pre-selected instructional material for use in the classroom and additional ongoing support which was provided by resource teachers.

2. Randazzo, Joseph D." A Case for Early Learning-An Invitational Environment for Children Ages 3-6" Hartford Public Schools, Hartford, Conn. 1970.

Implications for the Intermediate Level

The early success of this primary program was a reflection of the fact that the pupils enjoyed coming to school as well as learning. In addition test scores for the first time in eight years, began to indicate growth trends in the skill areas of reading and mathematics. Unfortunately, these gains did not persist at the intermediate grade levels.

The intermediate grades, three through six, generally used a highly traditional, middle-class oriented approach to learning. Since great concern was being expressed as to what would happen to the lower grade pupils who were entering the traditional program, plans were made to establish an intermediate level pilot program. Here the intent was to blend this pilot with the open approach of the primary program, but still stress the development of skills.

Intermediate Open Education Pilot as a Solution

The objective of the planning was to develop, through the application of various combinations of resources, a series of models wherein the practices, procedures, and materials utilized in the K-2 program could be modified and then carried into the middle grade levels. Using these pilots as a base, it was envisioned that the impetus

for expanding the primary program to eventually cover the total elementary K-6 grade spectrum could be developed. Intermediate models and program elements had to be evaluated. Reading and mathematics gains, and attitudes of youngsters, parents and staff toward their program also required assessment.

Design and Implementation of the Pilot Programs

These pilot programs were initiated in six elementary schools. Each pilot program teamed four teachers, two from each of grade three and four, with a clerk-paraprofessional. In all situations a five-member team (four teachers and one clerk-paraprofessional) was formed. In common with the primary program, each team received three weeks of training and the equivalent of one-thousand dollars in pre-selected material and equipment per teacher.

Implications for Future Application

Although initial evaluative results were encouraging with test scores showing results far in excess of month-for-month gains in most pilot locations, there were also a number of problems. Many of the teachers were unhappy with being forced into a teaming approach. At the Board and central office, though pleasure was expressed with the test results, the realities of a worsening economic situation effected decisions. These problems for future programming reflected the following:

1. the clerk-paraprofessional position was eliminated for each team.
2. the reading and math programs, locally designed and produced for the objectives and instructional philosophy of the school system, had to be curtailed. This curtailment of materials in these areas would probably have occurred anyway because many teachers were unable to cope with the highly individualized characteristics of the programs without additional assistance and the production costs of the items themselves, which were consummable, were constantly increasing.
3. the training time which involved substitute costs were reduced.
4. funds allocated for materials and equipment were reduced from an average of $1,000 per teacher to about $700 per teacher.

INSTITUTING EDUCATIONAL CHANGE AT THE INTERMEDIATE LEVEL

School District Priorities

The Board of Education had previously established several long-range system-wide goals. These included:

... Individualization of Instruction

... Development of Self-Directed Learners

... Humanistic Emphases

... Reading Improvement

... Mathematics Improvement

A commitment to these goals continued. Despite economic constraints, the Board provided funds to permit one week of substitute time for each teacher to be trained and approximately seven hundred dollars ($700.00) per teacher for special materials and equipment in addition to the general per pupil allocation. It was intended that the stated goals and concepts for the intermediate grades would be implemented to the degree possible within the context of the open education philosophy. This then would result in the intermediate program being a sequential extension of the primary grade approach.

Developing Strategies to Meet Education Needs

During the late winter of 1974, a committee composed of classroom teachers, principals, resource teachers and various members of the central office staff were convened by this writer to solidify plans for what was first known as "3-6 Restructuring" and later changed to "Intermediate

Grade (level) Restructuring." The major concern of this group was the design of a retraining program for the teaching staff of the intermediate grades. The intent was to continue those successful practices and procedures of the primary program and build on the results of the intermediate pilot programs.

The one dominant concern of the planning group, and the school system, was the steady decline in intermediate grade level reading and math scores as measured by national standardized tests (see Appendix A). Pupils at the intermediate levels fell consistently several years below national norms in these skill areas.

Competent Hartford teachers shared the concerns of the planners and school district supervisors. Teachers recognized major problems in whole class instruction and the inconsistency of the existant approach in assisting pupils who had a multitude of problems, variations in experiential background, and differences in abilities and learning styles.

Practicum Objectives

The intent of this practicum was to provide an initial staff development/pupil achievement thrust that would result in improving learning for pupils as specified below:

Objective 1 - Reading and Mathematics Achievement:

To provide skills and establish a climate through the training program and follow-up activities that would lead to improved reading and mathematics achievement.

As cited previously in this paper, there had been a steady decline in reading and mathematics achievement since the early 1960's as measured by national standardized tests. The primary open education program began a change in instructional procedures and staff attitude that apparently lead to improvement at that level. The major objective of this practicum was to provide impetus and additional skills for staff that would continue the improvement of pupil achievement in reading and math at the intermediate level as measured by national standardized tests.

Objective 2 - Classroom Procedural Implementation:

To assess the effectiveness of the training program by the degree of classroom implementation.

A prime concern throughout this practicum was to assist and encourage teachers to establish an open education approach in the learning procedures for pupils. This included the implementation of individualization practices, effective instructional management approaches through classroom arrangements and record-keeping systems, and the active involvement of pupils in the options for learning.

This concept would be essential if students were to achieve both short-term and long-range growth.

Objective 3 - Attitudinal Changes of Staff: To ascertain whether the teacher training workshop and its follow-up procedures effected change in teacher attitude.

Every effort was made to involve participants in decision-making relative to their learning and improvement during the training session and follow-up activities. Since one of the Board of Education's goals was to establish humanistic approaches in the classroom, it was anticipated that, in addition to discussions related to this topic, a training format implementing such techniques would cause participants to react favorably to these procedures. Thus, the participants, as teachers, would be encouraged to translate this same humanistic approach in their interaction with pupils in their classroom.

Objective 4 - Workshop Training Procedures: To develop a workshop training procedure that effectively meets the growth needs of teachers to achieve the system-wide goals and concepts.

It was felt that teachers, as other professionals, need to be involved in a "recycling" process to update and refine techniques and procedures. A major method that would determine the effectiveness of the training workshop procedures would be an assessment by the participants.

Additionally, this constant appraisal and feedback process would provide a basis for revisions, additions and/or elimination of training methods as related to the needs of the "clients" both present and future.

Objective 5 - Instructional Management System: To assess teacher suggestions for improving the common reading and mathematics record-keeping systems.

Though each Hartford school generally determines the instructional materials and process for the development of reading and mathematics skills, it was essential that there be a system-wide list of learning objectives and a common system of pupil progress data collection. These factors were obligatory with the high degree of pupil mobility and community interest in student achievement.

Practicum Implementation

Training Program Content

The previously cited planning committee expressed grave concern over the limitations imposed by only a one-week workshop for each teacher. However, the condensed workshop design contained what were considered to be the essential elements necessary to initiate change within this constraint.

Teacher participants were assigned to the various workshop periods with the approval of the school principal.

Since it was not practical to simultaneously release all the teachers from a school every effort was made to have at least two teachers from a school as participants at the same workshop. Previous experience had indicated that this procedure was effective in that the participants would know at least one other person; they would have an opportunity to discuss the educational concepts in the workshop in relation to their school programming; having a common base of understanding, they would be supportive of each other upon their return to their school environment; during the workshop discussions they might decide to attempt a teaming approach when they returned to their school.

The previously cited system-wide goals and concepts reflected pupil needs in a generalized fashion. The staff development workshop provided more detailed training requirements which were essential to achieve these goals.

The workshop provided and stressed participant involvement in both background seminars and in practical applications. Major areas experienced during the workshop included:

... Diagnosis and Prescription in Reading and Mathematics

... System-wide Objectives and Recordkeeping in Reading and Mathematics

... Common Sense Approaches to Individualization

... Developing Attitudes of Staff

... Learning Disabilities

... Helping Bilingual Students

A detailed structure of the training week is included in Appendix B.

Training Center

The training sessions were held in a vacated older school building in which the auditorium had been converted into a Professional Development Center. This large area was sub-divided into interest centers which included:

... Reading

... Mathematics

... An interdisciplinary area combining science and social studies

... A work area to create material

... A small area containing some technological devices.

Additional resources which were housed in the building and made available to participants included:

... a teacher center with a competent staff whose purpose was to assist teachers in making useful materials for instruction

... an Intensive Reading Instruction team to whom pupils were bused for reading improvement.

Each of the academic interest centers contained both teacher-made and commercial materials suitable for a two through six grade span. All material was displayed on bookcase-style shelving, primarily constructed from cinder-block and pine board. All items had designated shelf location with a corresponding number, letter or color-code which had been placed on each item and its location on the shelf.

This large open area was intentionally selected to provide an opportunity for many workshop activities to function simultaneously in the same area without conflict. The intent here was to provide an example to the participants of the feasibility of constructing multiple activities within their own classroom environment without conflict.

Training Program Operation

During the initial portion of each workshop session, an overview-orientation was held. This orientation stressed:

1. The system-wide goals established by the Board of Education.
2. The statistics of pupil achievement.
3. Objectives of the workshop.
4. Regulations concerning the operation and conduct within the workshop area.

Each participant was assigned to a "Home Base" (Appendix C) with a resource teacher functioning as "Home Base" training leaders. Participants were assigned to resource teachers who were designated to do follow-up in the trainees school. During the "Home Base" session, each participant was given a packet containing four workshop requirements:

- a workshop schedule of staff presentations (Appendix B)
- a contract in the reading area (Appendix D)
- a contract in mathematics (Appendix E)

  (Both the reading and math contracts contained two sections--a series of behavioral objectives related to specific knowledge of skills in the subject and a list of optional activities to create material intended to help pupils learn a specific skill.)
- a mini-Action Plan form (Appendix F)

It had been considered and would have been most desirable to pre-test each participant to determine specific areas of competency in the teaching of reading and math. However, the lack of an appropriate testing device and a lack of sufficient staff to test prior to each workshop prohibited this activity. In lieu of this, the resource teachers conducted an oral interview with

each participant at the beginning of the one-week training session to determine if (a) an "Alternate Individual Contract" should be made, and (b) whether the participant even wished to change the basic contracts which had been distributed.

Participants were provided with a listing of schools and selected classes which were successfully implementing the training goals. These classes included open space team-teaching, separated classrooms using team teaching and self-contained rooms. All classes had one major element in common: each was applying the previously stated system-wide goals with success, although using different styles and in varying physical facilities.

All aspects of the training sessions assumed participants to be teachers capable of making critical judgments and decisions about his/her learning. It was anticipated that this technique would encourage teachers to approach students in a similar involvement of learning and self-directed development.

Action Plans

An additional step taken, as a result of the planning committee, was the convening of all elementary school principals and teachers representing the intermediate grades. This brief workshop reviewed system-wide priorities, outlined

plans of the training program, long-range schedules and essential steps to be taken.

As a result of this background session, each school prepared an Action Plan (Appendix G) that described the school's present instructional status and its long-range plans to implement individualized programming in reading and mathematics. This process required that the teachers in the school be involved in the decision-making process. This procedure initiated the basis for the involvement process that was to be used in the training sessions for staff and one of the workshop requirements. Each participant would write a brief mini Action Plan (Appendix F) based on the school plan which described steps the participant would be taking to implement a program of individualizing instruction.

Role of the Resource Teacher (Appendix H)

Not a unique role but certainly essential, were the Resource Teachers. These were a small core of successful practioners who had been released from their classrooms on a full-time basis for one year. Although Resource Teachers varied in the strength of their teaching experience, all had demonstrated competency and creativity in the classroom.

The Resource Teachers provided support on a peer-relationship basis to the classroom teachers. They created

material and assisted in the design and establishment of the training center. During training workshops, they functioned as:

- "Home Base" teachers
- assessed the completed work of participants
- assisted participants with their work
- demonstrated teaching techniques.

Each Resource Teacher was assigned as liaison to approximately four schools. In this role they provided on-site follow-up into the classroom of former participants--giving suggestions, demonstrating procedures, creating material, and helping to establish an environment conducive to learning. Additionally, the Resource Teachers manned the training center which was open beyond the normal school day.

Record-Keeping System (Appendix H)

Two workshop requirements were the presentations of the common record-keeping system for reading and mathematics. Additionally, the individual participant contracts required demonstrated skill in the use of the pupil instructional objectives with which these record-keeping forms were used. Participants were required to select a skill, locate materials (or design them) that could be used by pupils to master the skill and identify the objective on the record-keeping card.

The concept of a common record-keeping format was the outgrowth of frustration on the part of many teachers and administrators. These individuals felt it was essential to have a record-keeping system that would indicate the level of pupil mastery of required skills in reading and mathematics and would have significance when transferred with a student when moving to another school. This was prompted by the high rate of pupil mobility in the school system where some schools reach a pupil changeover ranging between 75% to 100% in a given school year.

The record-keeping format which was designed was based on the individualized reading and mathematics program used in the six pilot schools described earlier. One form combined both reading and language arts skills into what became known as Communication Arts, while the second form contained all of the mathematics skills. Both charts provided a similar format for continuity and simplicity.

EVALUATION OF THE PRACTICUM

Criteria for Evaluation Design

To assess the objectives stated for this practicum, several data collecting devices were used:

- The Metropolitan Achievement Test was used to determine the accomplishment of the first objective: improved pupil achievement in reading and mathematics.
- Two questionnaires were constructed and administered to assess the degree of classroom implementation of the factors stressed in the training program and to determine the program's effectiveness in terms of pupil growth.
- An opinionnaire was designed and administered to determine the degree of attitudinal changes on the part of participants resulting from the training.
- An evaluatory device was used to ascertain participant reactions to the workshop sessions.
- A questionnaire was constructed and distributed to a random sample of third and fourth grade teachers to identify suggestions concerning the reading and mathematics record-keeping systems.

The data collected were tabulated and are presented in the following tables with commentaries.

Reading and Mathematics Achievement

It was previously noted that the major purpose of this practicum was to establish a climate for training elementary teachers in grades 3-6 in individualized instructional techniques which would lead to improved student achievement in reading and mathematics. Such improvement would have as its goal students achieving one month growth for each of ten months school is in session.

The determination of the degree to which this objective was attained was based on a comparison of district achievement test results. The Metropolitan Achievement Test (M.A.T.) Form F, was administered as part of the district's testing program in May and June of the 1973-74 school year to students in grades 3 and 4. These results are compared with the test data resulting from administration of the same test in May and June of the 1974-75 school year to students in grades 4 and 5. (Since the test was administered more than six months later, this procedure is considered valid.)

Testing data included in the analysis relate only to those schools (21 of the 25 schools) whose teachers participated in the training program. In 1973-74 1,313 students were tested, and in 1974-75 the number of students tested was 1,277.

It should be noted that test data were collected from two of the three grades included in the study. Second grade students were not tested in 1973-74 because of a change in the test program.

Since test data were collected on a grade by grade basis over subsequent school years, the variables of teacher turn-over, pupil mobility, and attendance were not analyzed as these were considered to have remained static over the course of this study.

TABLE I

A Comparison of Metropolitan Mean Grade Equivalent Reading Scores for Selected Students, Spring 1974 and 1975

School	Number of Students Gr.3 73-74	Number of Students Gr.4 74-75	Word Knowledge Gr.3 73-74	Word Knowledge Gr.4 74-75	Diff.	Reading Gr.3 73-74	Reading Gr.4 74-75	Diff
Arsenal	65	73	2.6	2.7	.1	2.4	2.8	.4
Barbour	31	25	2.9	3.6	.7	2.6	3.6	1.0
Barnard-Brown	22	63	2.3	2.7	.4	2.2	2.6	.4
Batchelder	69	62	3.9	4.3	.4	3.7	4.7	1.0
Burns	92	92	2.8	3.1	.3	2.8	3.2	.4
Burr	41	44	3.6	3.8	.2	3.4	3.9	.5
Dwight	35	54	3.6	3.8	.2	3.3	3.5	.2
Fisher	127	129	3.5	3.8	.3	3.4	3.6	.2
Fox	73	75	3.2	3.1	-.1	2.9	3.5	.6
Hooker	75	91	2.6	3.2	.6	2.5	3.1	.6
Jones	144	143	2.9	3.3	.4	2.6	3.2	.6
Lennelly	60	66	4.4	4.5	.1	3.8	4.3	.5
McDonough	73	60	3.3	3.7	.4	3.1	3.8	.7
Naylor	58	62	4.3	4.3	0	3.9	4.6	.7
New Park	70	61	3.2	3.6	.4	2.9	3.5	.6
Rawson	91	88	3.3	3.6	.3	3.0	3.6	.6
Twain	78	74	3.5	4.4	.9	3.3	4.2	.9
Vine	101	26	3.8	3.5	-.3	3.2	3.3	.1
Webster	67	78	3.7	5.5	1.8	4.2	5.5	1.3
West Middle	28	61	3.0	3.6	.6	2.8	3.5	.7
Wish	66	57	2.8	3.4	.6	2.5	3.0	.5

Commentary:

1. An analysis of the data contained in Table 1 points out that over a one year period, in a majority of instances, only minimal test gains could be reported on both of the M.A.T. reading sub-scales. On the word knowledge sub-test, while gains ranged from a low of -.1 to a high of 1.8, the average change was .4 months. Similarly, on the reading sub-scale, while the range was slightly less, running from .1 to 1.3, the average gain was .6.

2. Given the assumption that while students should make month for month gains with a minimum of .7 of a month gain being equated with skill retention, it would appear that on the word knowledge sub-test, only one school met the retention criterion, and only one met, or exceeded the month for month standard. On the reading sub-test, the pattern was a little more salutary with three schools maintaining their skill level and one meeting the month for month standard. It should be noted that Batchelder (reading) and Webster (word knowledge and reading) are among the more affluent school neighborhoods in the system. Twain, on the other hand, (word knowledge and reading) and Barbour (reading) are less affluent but are somewhat comparable to schools found in suburban middle-class communities.

TABLE II

A Comparison of Metropolitan Mean Grade Equivalent Reading Scores for Selected Students, Spring 1974 and 1975.

School	Number of Students Gr.4 73-74	Gr.5 74-75	Word Knowledge Gr.4 73-74	Gr.5 74-75	Diff.	Reading Gr.4 73-74	Gr.5 74-75	Diff.
Arsenal	57	83	3.2	3.3	.1	3.0	3.5	.5
Barbour	32	31	3.5	4.0	.5	3.7	3.8	.1
Barnard-Brown	39	80	2.9	3.1	.2	2.8	3.3	.5
Batchelder	67	74	4.4	5.0	.6	4.6	5.1	.5
Burns	73	79	3.3	3.3	0	3.2	3.5	.3
Burr	48	40	4.1	4.8	.7	4.2	5.1	.9
Dwight	45	46	4.0	4.3	.3	3.9	4.4	.5
Fisher	143	147	3.8	4.6	.8	3.7	4.5	.8
Fox	60	42	3.7	4.7	1.0	3.7	4.7	1.0
Hooker	101	100	3.0	3.3	.3	2.7	3.2	.5
Jones	160	172	3.2	3.6	.4	2.8	3.7	.9
Kennelly	75	86	4.7	5.9	1.2	5.0	5.9	.9
McDonough	75	83	3.8	4.2	.4	3.7	4.3	.6
Naylor	69	82	4.3	5.8	1.5	4.2	5.6	1.4
New Park	55	59	4.0	4.9	.9	3.5	5.1	1.6
Rawson	85	78	3.7	4.1	.4	3.4	4.1	.7
Twain	86	75	4.2	4.9	.7	4.3	4.9	.6
Vine	18	*	3.6			3.7		
Webster	71	66	5.3		1.1	5.8	6.2	.4
West Middle	56	57	3.4	4.2	.8	3.2	4.0	.8
Wish	62	63	3.1	3.4	.3	3.0	3.4	.4

* Only thru grade 4

Commentary:

1. In Table 2 positive gain patterns are reported for all schools in both sub-tests with the exception of Burns (word knowledge) for the 4th grade students over the one year period.
2. On the word knowledge sub-test, three schools reached the maintenance level while two met the month-for-month standard. The average was .4.
3. The gain pattern on the reading sub-test was slightly greater. Four schools met the maintenance requirement and two achieved or exceeded the month-for-month gain standard, while the average was .7. It should be noted that of the two schools reporting the largest gains (Naylor and New Park) only one could be considered as being of middle class economic status

TABLE III

A Comparison of Metropolitan Mean Grade Equivalent Mathematics Scores for Selected Students, Spring 1974 and 1975.

School	Number of Students Gr.3 73-74	Number of Students Gr.4 74-75	Math Computation Gr.3 73-74	Math Computation Gr.4 74-75	Diff	Math Concepts Gr.3 73-74	Math Concepts Gr.4 74-75	Diff.
Arsenal	65	73	2.7	3.7	1.0	2.7	3.5	.8
Barbour	31	25	2.6	4.0	1.4	2.5	3.5	1.0
Barnard-Brown	22	63	2.7	3.9	1.7		3.2	
Batchelder	59	62	3.6	4.8	1.2	3.9	4.9	1.0
Burns	92	92	2.9	4.3	1.4	3.3	3.7	.4
Burr	41	44	3.8	4.5	.7	3.3	4.0	.7
Dwight	35	54	4.1	4.6	.5	3.4	3.7	.3
Fisher	127	129	3.0	3.9	.9	3.2	3.5	.3
Fox	73	75	3.2	4.0	.8	3.7	3.3	-.4
Hooker	75	91	2.5	4.2	1.7	3.3	3.4	.1
Jones	144	143	2.8	3.8	1.0	3.6	3.2	-.4
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New Park	70	61	3.4	4.5	1.1	3.0	3.9	.9
Rawson	91	88	2.8	4.0	1.2	2.9	3.5	.6
Twain	78	74	3.3	4.7	1.4	3.4	3.9	.5
Vine	101	26	2.9	3.8	.9	3.8	3.3	-.5
Webster	67	78	4.2	5.6	1.4	3.9	5.3	1.4
West Middle	28	61	3.2	5.3	2.1	3.2	4.2	1.0
Wish	66	57	2.7	4.1	1.4	3.2	3.6	.4

Commentary:

1. Presented on Table 3 was data for the M.A.T. mathematics sub-tests of third graders in the spring of 1974 and of fourth graders in the spring of 1975. In general, the gain patterns were far more salutary.
2. In math computation, six schools reached the skill maintenance level and ten achieved or exceeded the month-for-month gain standard while the average was 1.1.
3. The above pattern was in contrast to the math concepts gains which were far lower. Here only five schools reached the maintenance level, while only one reached the established standard. Four schools show decreases in test levels ranging from -.2 to -.5, while the average for this sub-test was .4.

TABLE IV

A Comparison of Metropolitan Mean Grade Equivalent Mathematics Scores for Selected Students, Spring 1974 and 1975.

School	Number of Students Gr.4 73-74	Gr.5 74-75	Math Computation Gr.4 73-74	Gr.5 74-75	Diff.	Math Concepts Gr.4 73-74	Gr.5 74-75	Diff.
Arsenal	57	83	3.8	4.4	.6	3.0	3.8	.8
Barbour	32	31	3.7	4.7	1.0	3.0	3.9	.9
Barnard-Brown	39	80	3.5	4.5	1.0	3.0	3.9	.9
Batchelder	67	74	4.6	5.3	.7	4.3	5.3	1.0
Burns	73	79	4.0	4.0	0	3.3	3.6	.3
Burr	48	40	4.3	5.7	1.4	3.7	4.9	1.2
Dwight	45	46	3.4	4.8	1.4	3.6	4.2	.6
Fisher	143	147	3.7	4.7	1.0	3.6	4.4	.8
Fox	60	42	3.6	5.8	1.2	3.9	5.1	1.2
Hooker	101	100	2.9	3.9	1.0	3.3	3.1	-.2
Jones	160	172	3.5	4.6	1.1	3.0	3.8	.8
Kennelly	75	86	4.9	5.8	.9	4.7	5.4	.7
McDonough	75	83	3.7	4.5	.8	3.7	3.9	.2
Naylor	69	82	5.3	6.6	1.3	4.7	5.7	1.0
New Park	55	59	4.6	5.5	.9	4.2	4.9	.7
Rawson	85	78	3.9	4.6	.7	3.3	3.9	.6
Twain	86	75	4.7	5.3	.6	4.3	4.8	.5
Vine	18	*	3.4			3.3		
Webster	71	66	5.7	6.7	1.0	5.3	6.9	1.6
West Middle	56	57	3.4	4.8	1.4	3.6	4.3	.7
Wish	62	63	3.5	4.4	.9	3.3	3.6	.3

* Only thru grade 4

Commentary:

1. Table 4 indicates a stronger gain pattern in math computation for the fourth graders for the one year period as they progressed through fifth grade. Here, nine schools reached the maintenance level, while five reached or exceeded the month-for-month standard. The average gain was 1.0.

2. In contrast, the math concepts results were lower with five schools achieving the maintenance standard and only three schools reaching or exceeding a month-for-month gain pattern, while the average was .7. Only one school showed a decrease of -.2.

Degree of Classroom Implementation (Part A)

Since it was the major intent of the training program to establish a climate which would facilitate reading and mathematics achievement, it follows that the concepts, skills and techniques which were imparted during the training program must be implemented at the classroom level. It was neither practical nor possible for the writer to conduct onsight assessments to actually ascertain the degree of training implementation nor for the writer to assess this implementation on an objective rather than subjective basis. Consequently, consideration was given to the possibility that the resource teachers examine implementation at the classroom level. As part of their task, they routinely visit each of the participants classrooms. Unfortunately, the teachers contract prohibited the use of these personnel for this task, since assessing implementation could be construed as being supervisory in nature. As a result, two checkpoint lists were developed. The first of these, the Teacher Self Assessment, was designed as a non-threatening, self-reporting form by which individual teachers would anonymously report the extent to which the various areas and items covered in the workshops had

been implemented in their classrooms. Teacher Self Assessment forms were distributed to all of the 175 participants in the workshopswhich were conducted in the spring and fall of 1974. Responses received from 91 participants, or 52% of the total, were tallied, converted to percentages, by items, and reported in the following table. Note here that since participants often checked more than one response category, the number of responses frequently exceeded the number of respondants reporting.

TABLE V

Analysis of Teacher Self Assessment Responses
By Percentage, Spring 1975

AREA	IMPLEMENTATION LEVEL			
INDIVIDUALIZATION	N	None	Started	Well Under Way
Diagnosis: Reading-Language Arts	84	1%	19%	80%
Prescription: Reading-Lang. Arts	80	2%	23%	75%
Diagnosis: Math	76	5%	30%	65%
Prescription: Math	66	6%	33%	61%
Ad Hoc Grouping	82	2%	31%	67%
Learning Options(materials and approaches)	70	2%	44%	54%
SCIENCE	66	22%	51%	27%
SOCIAL STUDIES	58	17%	52%	31%
MANAGEMENT APPROACHES				
Record keeping-Reading	76	1%	22%	77%
Record keeping-Math	72	6%	33%	61%
Instructional Contracts	75	26%	28%	46%
Interest Centers	88	6%	40%	54%
Organization of Materials	83	1%	39%	60%
Teaming	76	32%	10%	58%
ATTITUDINAL APPROACHES				
Interaction:				
pupil to pupil	83	0	30%	70%
pupil to teacher	85	0	21%	79%
teacher to teacher	77	5%	19%	76%
Pupil Involvement Class decision making	79	7%	52%	41%
RECEIVED MATERIAL AND EQUIPMENT				
Needed for Implementation	79	12%	49%	39%
MEAN SCORE OF CATEGORIES	1455	8%	32%	60%

Commentary:

1. As can be seen from the preceding table, on a vast majority of the items (13 out of the 18), over one-half of the respondants reported that the various activities were "well underway." Of the four other items, more than half of the teachers reported that the activity had been started. On five activities where percentage of response ranged from 12% to 32%, it indicated that the item had not been undertaken at all.

2. The final item shown on the table (receipt of material and equipment) was not included as one of the items above. The lack of receipt of these items by some teachers could have implications for the implementation level of activities such as learning options, interest centers, and organization of material.

3. Categories dealing with individualization, reading and math implementational level seemed particularly salutary with a minimum of 95% reported as started or better.

4. Respondants indicated implementation levels of 78% in science to 83% in social studies. Though no major requirements had been established for these areas, workshop participants had involved themselves with the interest centers containing these subjects.
5. Over two-thirds of the respondants indicated that they had "started" or were "well underway" with various management approaches listed. Only the areas of "instructional contracts" and "teaming" were low.
6. Almost all respondants reported high levels related to the various categories of interaction. Only in "pupil involvement" did the majority of teachers report to be only at the "started" level of implementation. It would seem from this pattern that the attitudinal approach was highly supportive to individualization and to the management approaches which were taught during the conduct of the workshop.

Degree of Classroom Implementation (Part B)

The second assessment instrument which was constructed was a Teacher Questionnaire. This form was distributed to a random selection of 35 teachers who had been workshop participants in grades three through five. Respondants were asked to react to the questions which dealt with classroom management procedures by comparing their classes at the beginning and end of the 1974-75 school year and the previous year. Responses on questionnaires received from 20 respondants, or 57% of the total, were tallied, converted to percentages, and summarized in the following table.

TABLE VI

Analysis of Teacher Questionnaire Responses by Percentage, May, 1974 to May, 1975.

September					May			
N	Low	Avg.	High		Low	Avg.	High	N
17	12%	70%	18%	a. Students are placed at their level of competency which allows them to succeed.	0	24%	76%	17
18	44	50	6	b. Students check their own work.	0	61	39	18
18	28	66	6	c. Students know and understand their instructional goals.	6	50	44	18
18	28	44	28	d. Students are allowed to choose from available materials.	6	24	70	17
18	33	50	17	e. Students require directions before they will attempt to do an activity.	21	58	21	19
18	0	67	33	f. Students are given clear information on what to learn.	0	44	56	18
18	6	44	50	g. Students are allowed to successfully complete one task before going on to another.	0	28	72	18
18	11	45	44	h. Students are given responsibility for caring for materials in the room.	6	17	77	18

TABLE VI Contd.

September					May			
N.	Low	Avg.	High		Low	Avg.	High	N
18	61	28	11	i. Students are allowed to choose the order in which they do activities.	6	66	28	18
16	6	56	38	j. Each student proceeds at his own rate.	0	24	76	17
18	17	55	28	k. Each student works at his own level of competency.	0	37	63	19
18	17	66	17	l. Different ways of learning are available to students.	0	39	61	18
18	28	39	33	m. Flexible groupings are utilized.	6	28	77	18
231	23	52	25	Total Mean Scores	4	39	57	233

TABLE VI Contd.

Item	Response %	N
1. Each student proceeds at his own pace		19
Better than last year	58	
About the same as last year	37	
Worse than last year	5	
2. Student interest is		19
Better than last year	42	
About the same as last year	42	
Worse than last year	16	
3. Classroom discipline problems are		19
Less than last year	32	
About the same as last year	42	
Worse than last year	26	
4. Student achievement in reading and math is		19
Better than last year	47	
About the same as last year	37	
Worse than last year	16	
5. The number of students who received failing marks is		18
More than last year	11	
About the same as last year	50	
Fewer than last year	39	
6. The number of students who should be recommended for retention is		19
More than last year	11	
About the same as last year	47	
Fewer than last year	42	

TABLE VI Contd.

Item	Response % Yes	No	N
1. Whole-class instruction is more effective for student learning.	0	100	14
2. Teachers were involved in the decisions which led to the teaching procedures being used.	88	12	17
3. Individualization of student learning is more difficult for teachers to achieve.	83	17	18
4. The training program should be given to all teachers.	89	11	18
5. Students obtain greater academic achievement through individualized approaches to learning	88	12	17
6. The materials and equipment which teachers were able to order improved the learning possibilities for students.	94	6	18
7. The communication arts packets and/or mathips are used in my class.	59	41	17
8. The systemwide reading-language arts and/or math spiral(s) have been followed.	56	44	18
Total Mean Scores	72	28	138

Commentary:

1. For the first group of questions which were related to open education and individualization, teachers reported that substantial increases were made towards the goals on 12 of 13 items. The remaining item, students required some direction before they would attempt to do an activity, showed a very slight increase.

2. Of greater importance in the first section were the reported 40% to 50% increases on the items which were concerned with student decision-making in selecting materials for learning. This was also true on items which appeared to place a greater emphasis on individualization.

3. In the second portion of the table, concerned essentially with management, on the items dealing with failing marks and recommendations for retention (numbers 5 & 6), about half of the respondants rated these questions as being about the same as last year. The implication to this may be that while the students and the classes seem to be progressing to a series of stated goals, the level of expectation may

be rising to the point that the percentage of failures and retentions has remained the same. One can only speculate about the implications of classroom management in this regard.

4. Also in the second section, over one-half of the respondants reacted favorably to the item (#1) which concerned involving pupils on a more individualized basis. This rating seems particularly salutary when one considers that the item (#4) which was concerned with pupil achievement in reading and math received an almost 50% increase in ratings. Since the actual training was oriented toward improving pupil achievement in reading and mathematics, this rating pattern is particularly important.

5. In response to the general questions in the final portion of the questionnaire, a number of positive reactions could be reported:

   100% of the respondants agreed that whole-class instruction is poor for student learning.

... 83% indicated that individualization is difficult for teachers to achieve.

.:. 88% of the teachers responding indicated that they were involved (at the school level) in the decisions leading to the teaching procedures which they were using. Parallel to this is the 95% response that teacher involvement in ordering material and equipment improved learning possibilities for students.

... 89% of the respondants felt that all teachers should be involved in the workshop training program.

Conversely:

Only 56% of the respondants indicated that they followed the system-wide reading and mathematics objectives. Here it should be noted that the objectives and record-keeping system which was used by the teachers were in draft form with only third grade teachers asked to complete the record-keeping forms. Since they were in draft format, a number of schools continued with their established system.

Attitudinal Changes in the Classroom

In order to determine whether teacher attitudinal changes had in fact occurred as a result of the training program and follow-up activities, participants were requested to complete an anonymous checkpoint questionnaire. The Intermediate Grade Teacher Opinionnaire centered upon expected attitudinal changes. The questions contained in it were based upon a similar form which had been devised especially for the primary open education program. The eighty participants who comprised the last training cycle were administered the questionnaire at the beginning of the training session and again four months later. In the latter instance, while the same form was used, a different cover was attached to disguise the format.

When the form was administered, an assumtion was made that a substantial number of the participants would register relatively low on the attitudinal scale at the beginning of the workshop and that these ratings would change substantially over a given period of time. In contrast, a relatively strong percentage of responses agreed to some extent with the statements, and within a 50% to 75% range; a pattern which could well be attributed to the fact that teachers were intellectually conversant with the objectives of the open education

model although it had been observed that this philosophy had not as yet been articulated into the classroom at the intermediate grade level.

The 78 responses were tabulated and were analyzed by a t-test of related measure using a criterion level of .05. These data are reported in Table 7 which follows.

TABLE VII

Comparison of Mean Intermediate Grade Teacher Opinionnaire Ratings
Fall, 1974 - Winter, 1975

Item	N	Pre	S.D.	N	Post	S.D.	Dif.	Sig.[1]
1	78	2.0	1.3	39	1.9	1.2	-.1	
2	78	2.6	1.5	39	3.0	1.7	.4	
3	78	3.6	1.9	39	3.3	1.8	-.3	
4	78	2.7	1.5	39	2.7	1.5	0	
5	78	3.4	1.9	39	3.1	1.7	-.3	
6	78	2.6	1.4	39	2.9	1.4	.3	
7	78	3.3	1.8	39	3.0	1.7	-.3	
8	78	1.7	1.0	39	1.8	1.0	.1	
9	78	4.6	1.6	39	4.3	1.7	-.3	
10	78	3.7	1.8	39	3.5	1.9	-.2	
11	78	4.5	1.9	39	5.0	1.7	.5	
12	78	3.7	1.8	39	4.1	2.0	.4	
13	68	2.2	1.2	39	2.8	1.2	.6	**
14	78	3.8	1.7	39	4.0	1.8	.2	
15	78	4.2	1.7	39	3.6	1.7	-.6	*
16	78	5.3	1.5	39	4.9	1.6	-.4	
17	78	5.5	1.3	39	4.8	1.8	-.7	*
18	78	3.0	1.6	39	3.1	1.6	.1	
19	78	5.4	1.6	39	5.0	1.8	-.4	
20	78	5.8	1.4	39	5.6	1.6	-.2	
21	78	2.6	1.9	39	2.9	1.9	.3	
22	78	4.8	2.0	39	5.2	1.7	.4	
23	78	5.2	1.7	39	5.0	1.7	-.2	

Item	N	Pre	S.D.	N	Post	S.D.	Dif.	Sig.[1]
24	78	1.5	.8	39	1.3	.6	-.2	
25	78	1.9	.9	39	1.8	1.0	-.1	
26	78	4.5	1.5	39	4.9	1.6	.4	
27	78	2.7	1.5	39	3.0	1.7	.3	
28	78	2.2	1.3	39	2.3	1.2	.1	
29	78	4.5	1.8	39	4.6	1.9	.1	
30	78	3.3	1.5	39	3.5	1.3	.2	
31	78	1.9	.9	39	1.7	.9	-.2	
32	78	2.7	1.5	39	2.6	1.5	-.1	
33	78	2.1	1.2	39	2.8	1.5	.7	**
34	78	3.7	1.7	39	4.0	1.8	.3	
35	78	2.9	2.0	39	2.9	2.0	0	
36	78	3.2	1.4	39	4.0	1.4	.8	**
37	78	2.8	1.5	39	2.9	1.4	.1	
38	78	5.0	1.5	39	5.0	1.3	0	
39	78	2.5	1.0	39	2.8	1.2	.3	
40	78	3.7	1.7	39	4.2	1.6	.5	
41	78	3.4	1.7	39	3.4	1.8	0	
42	78	2.6	1.6	39	2.9	1.6	-.3	
43	78	2.9	1.7	39	2.6	1.5	-.3	
44	78	4.9	1.5	39	4.5	1.9	-.4	
45	78	4.5	1.7	39	4.1	1.9	-.4	
46	78	4.8	2.0	39	4.3	1.8	-.5	
47	78	4.7	1.6	39	5.1	1.2	.4	

[1] * = $p < .05$
** = $p < .01$

Commentary:

1. As can be seen on the preceding table, on a vast majority of the items (42 out of 47) no statistically significant mean differences could be reported. While no real difference on the several items was apparent, it should be noted that slight gains were observable. Whether these fluctuations were due to chance or indicate the beginning of a real shift in perceptions cannot be ascertained.

2. On items 13,33, and 34, there appears to be some real changes and in a positive direction.

3. Conversely, on items 15 and 17 a significantly mean decrease was reported.

When reviewing the preceding data, one is cautioned to avoid any tendency to exceed the information which is available as it relates to perceptions and attitudes of actual things. Perceptions change in terms of environmental pressures while attitudes are shaped gradually over varying periods of time. Only in the most dramatic instances can stark changes be reported on attitude measures. These

almost never occur for a delimited period of time. Nevertheless, the data does tend to indicate that attitudes may be shifting, that changes may be occuring, and that behaviors may be changing in response to the needs of students based on the model which the system has established.

The Development of Workshop Training Procedures

The approach to the workshop training was based on the asumption that participants were teachers who were capable of making critical judgments and decisions. In response to this assumption, participants were requested to assess various elements of the workshop at the conclusion of the one-week training period. In order to collect these assessments, two approaches were used.

The first technique was an informal "rap" session which allowed a free flow of ideas between participants and staff members. Notes were taken of the comments made during the "rap" session and analyzed by the writer and resource teachers on a subjective basis. Here the intent was to incorporate suggestions and recommendations into the next workshop session wherever possible.

The second assessment technique was an Evaluation Intermediate Grade Workshop Form. This form which covered all major aspects of the workshop, was distributed to participants for anonymous completion.

The Intermediate Grade Workshop Form was administered to 78 participants with responses obtained from

over 83% of the total distributed. Responses were tallied, converted to percentages and reported in three categories: organization for the classroom, usefulness for the classroom, and length of presentation. In addition to these categories a section was also incorporated relating to the contracts of the various activities covered, all of which are reported in the following table.

TABLE VIII

Analysis of Teacher Evaluations of the Workshops
[redacted]ercentage
[redacted], 1971

Presentation Title	Organization for the Classroom 1	2	3	4	5	N
Individualization Concepts	2[illegible]	58	9	4	0	55
[illegible]rganizing Materials	29	51	14	4	2	49
Diagnosis & Prescription	35	49	9	7	0	54
Diagnosis & Prescription-Seminar	33	30	27	7	3	30
[illegible]ecord Keeping & Objectives-C.A.	33	51	8	6	2	51
Instructional Management-Reading Seminar	21	54	21	4	0	28
Record Keeping & Objs.-Math.	29	55	12	2	2	42
Inst. Mgm.-Math Seminar	35	35	26	4	0	26
Developing Attitudes	39	39	20	2	0	51
Attitudes Seminar	50	27	14	9	0	22
Bilingual Teaching Seminar	17	17	38	17	11	18
Classroom Mgmt. Panel	19	51	14	5	11	37
Materials Skills-Rdg. Seminar	27	59	7	0	7	15
Learning Disabilities	30	48	9	13	0	46
Learning Disabilities Seminar	54	31	15	0	0	13
Health Education Seminar	33	51	8	0	8	12
Transition	52	33	5	5	5	21
Total Mean Scores	32	46	14	5	2	570

Code: 1 Very Helpful
2 Helpful
3 Undecided
4 Less Than Helpful
5 Very Little Help

TABLE VIII Contd.

Presentation Title	Usefullness for the Classroom 1	2	3	4	5	N
Individualization Concepts	33	62	3	2	0	58
Organizing Materials	29	55	10	4	2	51
Diagnosis & Prescription	41	37	11	11	0	57
Diagnosis & Prescription-Seminar	34	30	24	9	3	33
Record Keeping & Objectives-C.A.	37	46	11	4	2	54
Instructional Management-Reading Seminar	26	51	19	4	0	27
Record Keeping & Objs.-Math	30	51	9	5	5	44
Inst. Management-Math Seminar	28	40	28	4	0	25
Developing Attitudes	42	35	19	2	2	54
Attitudes Seminar	49	27	12	8	4	26
Bilingual Teaching Seminar	10	45	25	10	10	20
Classroom Mgmt. Panel	22	46	12	10	10	41
Materials Skills-Rdg. Seminar	28	66	0	0	6	18
Learning Disabilities	37	47	4	8	4	49
Learning Disabilities Seminar	47	33	13	0	7	15
Health Education Seminar	43	36	7	0	14	14
Transition	52	33	5	5	5	21
Total Mean Scores	35	45	12	5	3	607

Code: 1 Very Helptul
2 Helpful
3 Undecided
4 Less Than Helpful
5 Very Little Help

TABLE VIII, Contd.

Presentation Title	Length of Presentation 1	2	3	4	5	N
Individualization Concepts	25	48	23	2	2	53
Organizing Materials	27	54	13	4	2	45
Diagnosis & Prescription	27	55	10	8	0	51
Diagnosis & Prescription-Seminar	29	31	29	7	4	28
Record Keeping & Objectives-C.A.	30	45	19	6	0	47
Instructional Management-Reading Seminar	17	54	21	8	0	24
Record Keeping & Objs. - Math.	28	54	10	5	3	40
Inst. Management - Math Seminar	35	39	22	4	0	23
Developing Attitudes	39	37	22	2	0	46
Attitudes Seminar	40	45	10	5	0	20
Bilingual Teaching Seminar	16	21	31	21	11	19
Classroom Mgmt. Panel	23	40	17	6	14	35
Materials Skills-Rdg. Seminar	29	57	7	0	7	14
Learning Disabilities	34	48	7	11	0	44
Learning Disabilities Seminar	55	27	18	0	0	11
Health Education Seminar	33	42	17	0	8	12
Transition	52	33	5	5	5	21
Total Mean Scores	30	45	16	6	3	533

Code: 1 Very Helpful
2 Helpful
3 Undecided
4 Less than Helpful
5 Very Little Help

TABLE VIII, Contd.

Rate Workshop instructional materials in terms of:	1	2	3	4	5	N
a. Availability of teacher-made materials for reproduction	73	16	2	3	6	63
b. Number and variety of materials	75	18	0	5	2	61
c. Number and variety of commercial materials	54	42	2	0	2	62
d. Interest center organization	68	23	5	2	2	60
e. Displays for interest and learning	71	23	3	0	3	61
Total Mean Scores	69	24	2	2	3	307
Rate the assistance provided by the resource staff in terms of:						
a. Quantity of assistance provided to participants	73	23	2	2	0	61
b. Availability of resource staff	78	20	0	2	0	61
c. Knowledge and experience provided	72	20	5	3	0	61
Total Mean Scores	75	21	2	2	0	183
Rate your classroom observations in terms of:						
a. Program understanding gained from observing a primary classroom	63	34	0	0	3	29
b. Knowledge and ideas gained from observing an intermediate classroom	69	23	4	4	0	26
Total Mean Scores	65	29	2	2	2	55

TABLE VIII, Contd.

Rate the three contracts in terms of:	1	2	3	4	5	N
Reading-Language Arts:						
As a guide to your learning	37	51	7	3	2	59
Quality of items required	31	56	7	3	3	59
Potential usefulness as a classroom technique	37	46	7	5	5	59
Math -						
As a guide to your learning	35	52	7	2	4	55
Quality of items required	38	40	13	5	4	55
Potential usefulness as a classroom technique	45	37	10	2	6	51
Mini-Action Plan -						
As a guide to your understanding	22	40	14	12	12	58
As a guide for implementing procedures	19	43	14	12	12	57
Total Mean Scores	33	45	10	6	6	453

Rate the usefulness of the various options. Indicate which options used and circle the rating for each.

Option	RATING 1	2	3	4	5	N
T.I.L.C.	84	14	2	0	0	65
I.R.I.T.	51	31	8	4	6	51
Interest Centers-Reading	49	45	2	2	2	51
Interest Centers-Math	55	39	6	0	0	51
Interest Centers-Science	49	41	8	2	0	49
Interest Centers-Social Studies	45	45	8	2	0	47
Video Tape Presentation	47	29	6	12	6	17
Creating Materials	72	18	4	4	2	50
Total Mean Scores	59	32	5	2	2	381

Commentary:

1. Of the number of items dealing with organization for the classroom, a majority of the respondants rated each item as being very helpful or helpful. Response patterns ranged from 70% to 87% on all of the items but with two exceptions. In the diagnosis and prescription seminar item, only 63% of the responses fell into the "very helpful" or "helpful" categories, while 27% of the responses were "undecided." For the bilingual teaching seminar, only 34% of the responses were in the "very helpful" or "helpful" categories, while 25% were "undecided."

2. Of the items dealing with usefulness for the classroom, on each item with the exception of four, over 70% of the responses fell into the "very helpful" or "helpful" categories. In three exceptions, diagnosis and prescription, instructional management-math seminar, and classroom management panel, ratings were slightly lower than the majority, although 64%, 68%, and 68% respectively, fell into the "very helpful" and "helpful" rankings.

The fourth area, bilingual teaching seminar achieved a rating of only 55% in the "very helpful" and "helpful" categories.

3. On items dealing with the length of presentations, ratings on all but three items were 70% or above in the "very helpful" and "helpful" columns. Again, the bilingual teaching seminar received the lowest rating--37%--while the other two exceptions, diagnosis and prescription seminar and classroom management panel, fell slightly lower--60% and 63%.

4. Of the other aspects which were queried, on all items, with the exception of the mini-action plan, ratings in the "very helpful" and "helpful" columns exceeded 70%. For the latter item, 62% of the responses were rated in the "very helpful" and "helpful" categories.

Implementation of the Record-Keeping System

Since the early 1960's the Hartford school system has had an extremely high rate of pupil mobility between schools in the district. In many of the city schools the turnover rate ranges from 75% to almost 100% of the student population during the school year. In some schools the same pupils leave and return three or four times during the same school term. This mobility necessitated constant retesting of pupils with each move. Additionally, since staff members of each school in the district had developed or purchased a reading program of their own choosing, it was possible for a pupil to constantly repeat the learning of certain skills or to miss learning them over one or more years.

It became apparent that a common record-keeping system, together with a detailed listing of instructional objectives and criterion-referenced testing, would provide more definitive learning for pupils. It would also permit a more individualized pattern, and assist teachers to determine student needs in the basic skill areas. This record-keeping system would be helpful to teachers in reporting pupil progress to parents in a more understandable manner since specific skill development

could be cited. These latter factors had not been available in most Hartford schools to date.

To cope with this problem, a draft scope and sequence of objectives together with a common record-keeping form was developed in the areas of Communication Arts (reading-language arts) and Mathematics, grades three through six. While these materials have been cited previously, it should be pointed out that they were, at best, in pilot form. In consequence, this writer attempted to obtain teacher suggestions which could be used for improving the record-keeping system. To meet this objective, a questionnaire (3-6 Restructuring Record Keeping Cards) was developed and distributed to the one hundred grade three and four teachers who had been given the record-keeping system during the workshop held in the spring of 1974. Of this number ninety-five forms or 95% were returned, the responses tabulated and converted to percentages as shown on the following table.

TABLE IX

Analysis of Teacher Reaction to Reading and Math Record Keeping Forms by Percentage, Spring 1975

	READING	TOTALS N	MATH	TOTALS N
I. CONTENT				
1. Do you have a copy of the record keeping card?	Yes 96 No 4	95	Yes 29 No 71	55
2. a. Have you used the card?	Yes 91 No 9	82	Yes 12 No 88	33
b. If yes:				
1. Did you use the card to indicate which objectives your pupils mastered?	Yes 95 No 5	76	Yes 20 No 80	10
2. Did you use the card only as a list of learning objectives?	Yes 46 No 54	68	Yes 22 No 78	9
3. How would you rate the number of objectives?				
a. Too many?	Yes 91 No 9	67	Yes 33 No 67	6
b. Too few?	Yes 16 No 84	19	Yes 0 No 100	3
c. About right?	Yes 68 No 32	37	Yes 67 No 33	9
4. How would you rate the number of sub areas being covered? eg. encoding, language, etc., graphs, measurement)?				
a. Too many?	Yes 85 No 15	52	Yes 40 No 60	5
b. Too few?	Yes 32 No 68	19	Yes 25 No 75	4
c. About right?	Yes 82 No 18	49	Yes 75 No 25	8
II. FORMAT				
1. Is the design of the card:				
a. Easy to use?	Yes 67 No 33	48	Yes 43 No 57	7
b. Difficult to use?	Yes 88 No 12	57	Yes 100 No 0	5
2. Is the lettering size:				
a. Easy to read:	Yes 67 No 33	57	Yes 83 No 17	6
b. Difficult to read?	Yes 87 No 13	47	Yes 40 No 60	5
3. Is there sufficient information on the card?	Yes 82 No 18	72	Yes 83 No 17	6
Total Mean Score	Yes 79 No 21	865	Yes 36 No 64	171

Commentary:

1. Fully 91% of the respondants reported that they had used the Communication Arts (reading-language arts) record-keeping cards in contrast to only 12% who were using the mathematics form. It should be noted that, though the reported use of the mathematics material was not highly satisfactory, it was understandable since the communication arts area was stressed. It was also recommended to participants to implement only one area at a time.

2. In terms of content, 95% of the respondants said that there were too many items although two-thirds responded that the number of objectives was about right. Since the items of the form being reported were constructed to be independent, the writer tends to err on the side of cautiousness to point out that perhaps a reduction in the number of objectives is indicated.

3. In similar fashion, only 33% of the respondants felt that there were too many

objectives in the mathematics listing while 67% felt that the number of objectives was about right. However, since the number of respondants addressing themselves to this area were so few, further investigation appears to be indicated.

CONCLUSIONS AND RECOMMENDATIONS

Objectives of the Practicum

The primary objective of this practicum was the improvement of reading and mathematics achievement of students in the intermediate grades (pre-tested at the end of grade three compared with the post-test at the end of grade four and those pre-tested at the end of grade four compared to the post-test at the end of grade five). This was accomplished through the retraining of teachers in techniques which included diagnosis and prescription of learning needs.

Other objectives were also established, several of which were directly related to the primary objective. These included:

- ... individualized learning approaches in the reading and mathematics skill areas.
- ... implementing an instructional management approach based on common system-wide learning objectives and record-keeping devices in the skill areas of reading and mathematics.
- ... affecting a change in teacher attitude which would be more akin to the established system-wide philosophy.
- ... assisting teachers in the establishment of an open education approach in the learning procedures for pupils.
- ... developing an effective workshop training process.

Summary of Findings

In all but six instances some gains were reported on the M.A.T. scores in reading and mathematics. The greatest average gain in reading was achieved at the fifth grade level in the reading sub-test. While the greatest gain in mathematics was achieved at the fourth grade level in computation.

The majority of participants reacted favorably to the workshop and the value of the presentations. This reaction appeared to be reflected in the high degree to which aspects of individualized programs were implemented. While this occurred, the data related to attitudes of the participants showed no differences in almost all of the items.

Almost all of the respondants expressed the need to condense the learning objectives listed on the record keeping forms, especially in the Communication Arts. However, the number of reactions to the mathematics form was extremely small. Apparently, few of the participants attempted to use the math record keeping system.

Interpretation of Findings

While there generally was improvement during the tested period of time, the objective of achieving a month-for-month growth pattern in reading and mathematics was not accomplished. It should, however, be noted that the general downward trend of scores at the intermediate level in both reading and math,

which had plagued the school system, was halted. Some positive achievement, therefore, could be assumed. This was especially true in math computation where the average gain was 1.1 years and 1.0 year for the fourth and fifth grades respectively. In contrast the achievement in math concepts, at both levels, was low which could be related to the poor reading achievement. This is in contrast to the overall average gains reported in these findings which exceeded the figures reported during the 1970-73 school years which indicated average gains ranging from one to four months (Appendix A). (It should be noted that during the years mentioned no standardized test was administered at the third grade level, therefore, the figures cited at this level have been extropolated from the grades two and four M.A.T. scores.)

However, even those gain patterns reported in the tables cited earlier cannot be fully attributed to the teacher workshops and classroom follow-up. It does, though, have some significance when one looks at the previously mentioned primary program. That is, as the training of teachers concluded, the test results of the pupils in that grade took an upward swing. A similar pattern to that trend was found in the intermediate training program as the test results illustrated in the previous tables appear to indicate.

There also appears to be what could be several underlying factors for learning improvement which can only be interpreted subjectively. In Table VI, 94% of the teachers felt

that their involvement in selecting materials improved learning possibilities and 88% indicated they were involved in the decision-making process for the teaching procedures being practiced. These factors would seem to create a greater commitment toward ensuring success. Verbal conversations have also borne-out the strong feeling of this attitude on the part of the teaching staff.

As for the workshop itself, the aforementioned table indicated that 89% of the respondants believed that all teachers should be involved in the training program. Again, this aspect was strengthened by verbal statements and letters from participants who praised what they considered to be an opportunity for professional growth. The major objection, however, was the short duration of the training period.

In general, participant reaction (teacher attitude) toward open education and the manner in which pupils do and should learn best, was positive. However, as indicated in Table VII, this attitude could not be attributed to the workshop, per se, but was none-the-less gratifying. It had been assumed that the attitude of intermediate grade teachers in the categories queried in the opinionnaire, would be filled with negativism. With participant attitude being as positive as the results indicate some progress was to be assumed toward individualization of learning and greater pupil involvement.

Based upon participant reaction, the workshop itself contributed significantly toward clarification of concepts, creation of material and techniques for implementation of program. Many of the concepts espoused and demonstrated in the workshop were later found in practice in the classrooms of participants who had previously practiced whole-class instruction. It was evident, however, from both written reactions and verbal comments that one week for the workshop was an insufficient length of time. Therefore, long-range effectiveness would have to come from continued follow-up in the schools from the resource teachers and support from the principal.

Since the reaction to the record-keeping system was somewhat mixed, it did seem prudent to revise the format. To minimize negative reaction to what appeared to be an overwhelming task, as indicated by those responding to the questionnaire, the number of learning objectives listed on the form would have to be reduced. Additionally, it is essential to identify pre and post tests for the learning objectives that would be readily available to teachers to determine pupil achievement.

Recommendations

The training workshops appear to have halted the downward trend in reading and mathematics. The general restructuring concept in the intermediate grades appears to have created a

renewed enthusiasm on the part of these teachers. It would seem then that the workshop with some content revisions and the basic concept of restructuring, should be continued. However, changes should be made:

1. The duration of the workshops should be a minimum of three weeks. This would provide time for in-depth and practical experience in diagnosis and prescription in both reading and mathematics. Additionally, the content areas, in which growth of the skills truly takes place, could be explored and practiced to a greater degree.
2. Since the school principal is considered the educational leader of the school, he/she should be required to participate in the same (or similar) workshop to acquire the skills essential for support and supervision at the school level.
3. Additional in-service programming designed to upgrade techniques should be carried on at each school.
4. Teacher involvement in program determination and material selection should be expanded. Based on teacher reactions ascertained from data collected for this study, the possible increased time to function in this manner would be greatly offset by the generated enthusiasm and improved learning situation.

Present Status

In the spring of 1975, the Hartford Public Schools, as did many communities around the country, found itself mired in economic problems more serious than previous years. These conditions forced an even deeper program retrenchment on the part of the Board of Education. In Hartford one of the affected areas of budget-cutting was the elimination of the one-week training program proposed for grade 6 teachers and the special funds allocated for materials as a follow-up to the training. However, the positions of the resource teachers were retained. This aspect was intended to maintain essential continuity and support.

Concurrently, the Board of Education engaged a new Superintendent of Schools and began to implement a reorganization of the structure of the central administrative staffing pattern. These factors appeared to have an additional effect on the direction of the concepts originally conceived and operative in that greater responsibility was placed at the school administrative level. Perhaps most telling was the shifting and vast consolidation of responsibilities given to fewer individuals at the central office. These aspects, however,

are suppositions and may not prove to be accurate over a long period of time.

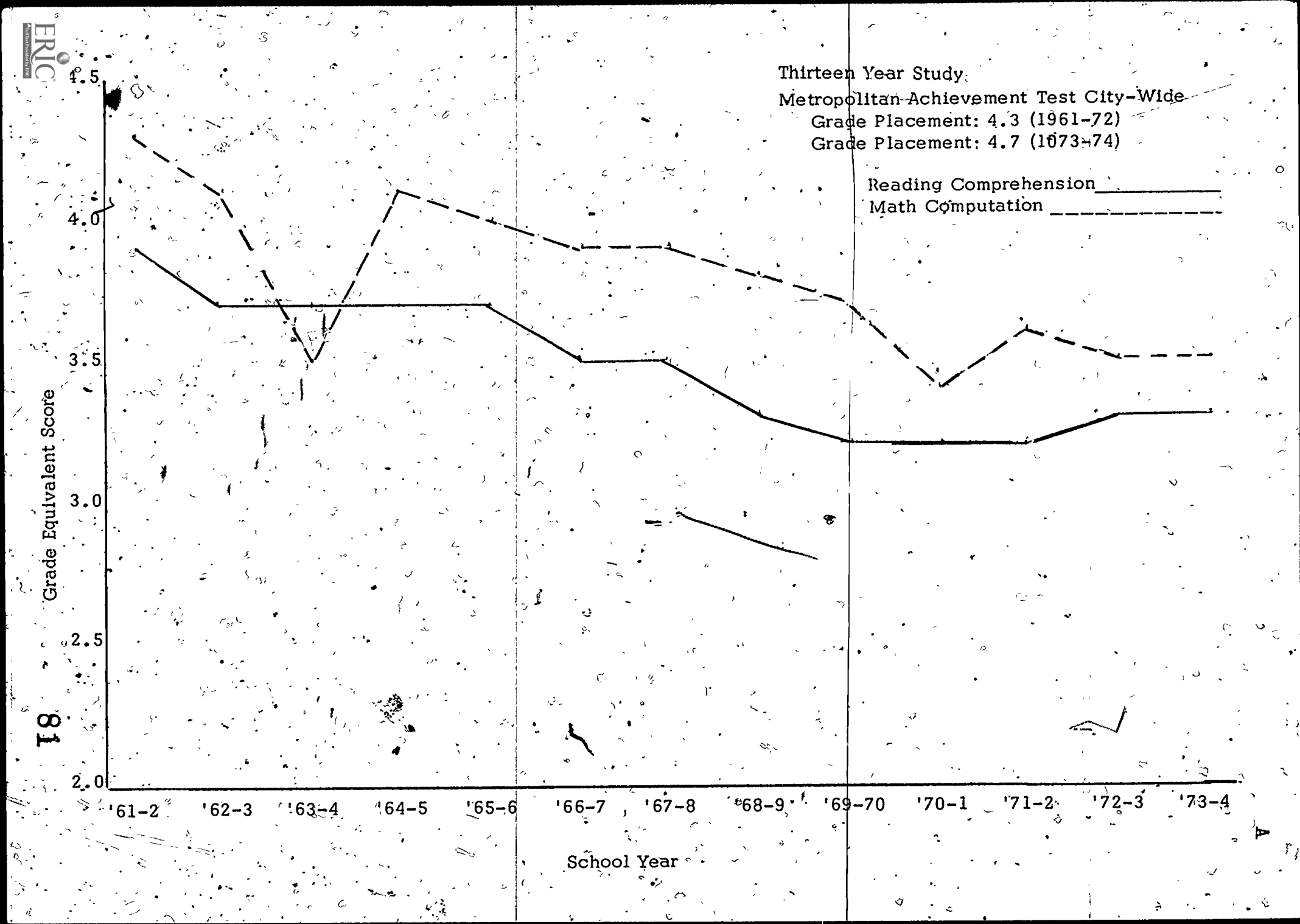
An interesting aspect, though, is a recent publication of the school system's testing department which tends to support the recommendation in this paper to continue the training approach. The article cites improved pupil test scores at the intermediate level. It further points out, as does this practicum report, the year-by-year improvement which coincided with the restructuring (training) program. However, as indicated in the first paragraph of this section, the Board of Education determined that the program was too expensive for this school year. Further, the present school system administration chose not to request funds for this type of training in the coming budget year.

It is relevant, however, to note that in a few schools there has been some attempt by the school administration to involve the teachers at the sixth grade level in some type of in-school training which would result in self-improvement similar to the outcomes of the one-week training session. Generally, in those instances where work has been done, the principal (or vice-principal) had voluntarily participated in one of the previously cited workshops.

Though no statistics are available, the resource teachers indicate from observation that a majority of those teachers involved in the training workshops have maintained one or more of the major aspects emphasized. Further, in many

instances, teachers have extended and improved the original approaches. Additionally, the reading specialists have refined the Communication Arts (reading-language arts) record-keeping system and have made it operational at all elementary grade levels. Unfortunately, no further work has been done with the mathematics system.

APPENDIX


Thirteen Year Study
Metropolitan Achievement Test City-Wide
Grade Placement: 4.3 (1961-72)
Grade Placement: 4.7 (1073-74)
Reading Comprehension
Math Computation
Grade Equivalent Score
4.5
4.0
3.5
3.0
2.5
2.0
'61-2
'62-3
'63-4
'64-5
'65-6
'66-7
'67-8
'68-9
'69-70
'70-1
'71-2
'72-3
'73-4
School Year

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:30	Introduction	"Home Base"		"Home Base"	"Home Base"
9:00		Presentation Diagnosis and Prescription: B. Wood	*Options . School Visitations . Work at Center	Presentation Developing Attitudes Evelyn Williams	Presentation Learning Disabilities: Recognizing and Handling F. Vincenzo
9:45 Tues. - Fri. (9:30 Mon.)		*Options Seminars: .Diagnosis and Prescription: ..Methods ..Grouping A. Cimochowski S. Raphael		*Options Seminars: .Attitudes .Bilingual Teaching Ideas Alberto Hernandez	*Options Seminars: .Learning Disabilities Ideas .Health Education H. Kycia
10:00	Presentation: Common Sense of Individualization H. Luccock				
10:30	Group I & II TILC Orientation Group III & IV			Presentation: (10:45) Classroom Management Panel A. Lehman A. Davis A. Minor	
11:00	Presentation: Group III & IV Organizing Materials G. Gross B. Atkinson	Presentation: Groups I & II Organizing Materials (Repeat)			Presentation: Transition G. Abery A. Johnson
12:00 (LUNCH)					

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
12:30		Presentation: Record Keeping & Objectives -- Communication Arts Alice Fraser	Presentation: Record Keeping & Objectives-Math I. Sinaguglia	*Options . Visitations . Work on Contract Seminars: . Material Skills A. Poch	1:00 - 1:30 "Home Base"
1:00	Groups I & II IRIT Orientation Groups III & IV TILC Orientation				
1:15		Groups III & IV IRIT Orientation			
		*Options Seminars: . Inst. Management Skills (Reading Contract) M. Fritz	*Options . Seminars: . Inst. Management Skills (Math Contract)		
2:30	WRAP-UP	WRAP-UP	WRAP-UP	WRAP-UP	WRAP-UP

NOTE: The following are optional areas available each day:

- ...I.R.I.T.
- ...Interest Centers
- ...Work on classroom mini "action" plan
- ...Work on classroom layout
- ...T.I.L.C.
- ...V.T.R. presentation
- ...Visit to classrooms
- ...Laminating
- ...Creating Materials

INTERMEDIATE GRADES WORKSHOP

October 28, 1974

HOME BASE

Group I

Teachers: Fran Ladd
Vita Nyman

Bancroft Dawes
Victor Lambert
Helen Daniels
Elizabeth Deveaux
Hugo LaPenta
Judy Faticanti
Peter Bonee

HOME BASE

Group II

Teachers: Sherry Balfour
Baxter Atkinson

Peter Dawidowitz
Marguerite Jones
Karen Drum
Richard Freedman
Nancy Rosenberg
Auristel Castillo

HOME BASE

Group III

Teachers: Gordon Gross

Ruby Lee Amison
Jane Zak
Elizabeth Brown
James Burns
Alex Wankevich
Arthur Kurtzman

HOME BASE

Group IV

Teacher: Andrea Johnson

Marion McNeish
Edward Kerr
Francis Spencer
Mary Petrizzo
John Marcuccio
Marisel Sotomoyor

INTERMEDIATE GRADE WORKSHOP

CONTRACT FOR READING - LANGUAGE ARTS

REQUIRED ITEMS:

1. Demonstrate the ability to find an objective in the C.A. Spiral and check it off on the record card.

   Done ☐

2. Select 3 or more objectives in the spiral and identify specific material in your classroom or (in the center) that pupils may use to master the objective.

   Done ☐

3. Develop a sample group and individual contract for work that could be used with pupils in your classroom.

   Done ☐

4. Make a taped lesson for use in your classroom

   Done ☐

ACTIVITIES: Choice of Three

You must do three activities such as those listed below. You may add others as you see fit and/or substitute for the listed activities with home base approval.

1. Make a bingo game using words from one of the reading/language arts objectives or words used in your classroom.

   Done ☐

2. Make an activity with a Science theme and correlate it to an objective on the C.A. Spiral.

   Done ☐

3. Make an activity with a Social Studies theme and correlate it to an objective on the C.A. Spiral.

   Done ☐

4. Make at least one activity to be used for creative writing.

   Done ☐

5. Make a set of flash cards or Go Fish or Concentration cards using words from your classroom work.

   Done ☐

INTERMEDIATE GRADE WORKSHOP

Contract for Mathematics

Required Items

1. Demonstrate the ability to find and explain in the math spiral the following: levels, areas, coding (including decimal), blocks and the teaching order of objects.
   Done ☐
2. Select three math objectives in the spiral and identify in writing specific materials in your classroom that can be used to teach these objectives.
   Done ☐
3. Demonstrate how the Diagnostic Pretest by Curriculum Development or a similar test being used by your school can be used to determine placement and prescription for your students.
   Done ☐
4. Devise a math contract which would be suitable for your classroom.
   Done ☐
5. List five possible ideas for an interest center that you could set up in your classroom over a period of time and describe an activity for each one.
   Done ☐

ACTIVITIES Choice of Three

You must do three activities such as those listed below. You may add others as you see fit and/or make substitutions for the listed activities with home base approval.

1. Select an objective from the Math Spiral on graphing and create an activity to reinforce that objective.
   Done ☐
2. Make an activity for Math objective .071
   Done ☐
3. Make at least one Math activity and correlate it to another area such as reading, science, social studies, art, cooking, etc.
   Done ☐
4. Make an activity which teaches that the dollar is the base of our money system and correlate the activity to an objective in the math spiral.
   Done ☐
5. Make a measurement activity and correlate that activity to an objective in the math spiral.
   Done ☐

NAME _____

SCHOOL _____

MINI ACTION PLAN

I. Are you familiar with your school plan (intended and actual procedures) for individualizing reading-language arts and math? If not, read it and compare it with present application.

II. Based on the school plan, your own background and knowledge acquired at this training session, describe briefly how you intend to implement individualization of reading-language arts and math in your classroom.

GUIDE TO ACTION PLAN DEVELOPMENT

I. Description of the Instructional Program

What approach will be used to individualize for the achievement of skills.

... Present status
... Contemplated changes (how done, time element)
... Determination of instructional approach(es)
.. individual and/or grouping patterns
.. system for diagnosing needs
.. description of the processes that will be used to help students

II. Description of the school organization

How should the school be organized for meeting individual needs--students and teachers?

... Multi-unit (classrooms) teaming (numbers of teachers and students)
... "Paired" teacher teaming
... Self-contained classroom
... Ad hoc teaming between classes and/or self-contained class

III. What materials, equipment and training is now available (or completed); what is needed?

... School inventory
... Identification of specific item needs
... "Pooling" of materials and equipment
... Special In-Service needs

IV. Time constraints for completion

... Submission of the reading-language arts action plan by May 1, 1974.
... Implementation of the reading-language arts plan by September '74.
... Submission of the math action plan by June 30, 1974.
... Implementation of the math plan during the late fall (Dec.), 1974.

RESOURCE TEACHERS

GERTRUDE ABERY	Experience	-	14 years teaching grades 1-8 and secondary. Conducted individualized program in reading and math grades 3 & 4 for three years.
	Degree	-	Master's +1
SHERRY BALFOUR	Experience	-	5 years teaching - primary and intermediate levels plus adult education - specialized in open education approaches.
	Degree	-	B.A. in Elementary and Secondary (English) Master's - Elementary Education
BAXTER ATKINSON	Experience	-	5 years - intermediate grades. Conducted individualized classroom programming.
	Degree	-	Master's - Elementary Administration
ANDREA JOHNSON	Experience	-	5 years teaching grades K-1. Conducted open education program.
	Degree	-	Master's - Early Childhood.
FRANCES LADD	Experience	-	5 years teaching primary grades using open education approaches
	Degree	-	Master's +1 Early Childhood
GORDON GROSS	Experience	-	8 years teaching primary and intermediate grades. Conducted individualized program in open education format.
	Degree	-	Master's - Early Childhood
VITA NYMAN	Experience	-	5 years teaching primary grades, open education approach.
	Degree	-	Master's - Elementary Education

PUPIL RECORD FORM
COMMUNICATION ARTS OBJECTIVES
GRADES K-8 (DRAFT)

DIRECTIONS FOR RECORDING DATES

1. Indicate the date (month/year) on the first column line when the objective is mastered.
2. Indicate the date (month/year) on the second column line if/when review is required for mastery-retesting.
3. Indicate additional mastery-retesting dates, when required by further review, to the right of the stated objective.

*Detailed information may be found in the teacher's manual explaining the C.A. objectives.

HARTFORD PUBLIC SCHOOLS Hartford, Connecticut ©1973

LEVELS	Decoding	Encoding	Language Exploration	Comprehension	Literature-Reference
LEVEL 5					
LEVEL 6					
LEVEL 7	MAINTENANCE				

Pupil Name: _____

	C. A. OBJ. LEVELS	Decoding	Encoding	Language Exploration	Comprehension	Literature - Reference
Teacher _____ Teacher _____ School Yr _____ School Yr _____ School _____ School _____ Grade _____ Grade _____	LEVEL 1	1 ____ ____ Environ. Sounds 2 ____ ____ speech sounds 3 ____ ____ rhyming 4 ____ ____ shapes - colors 5 ____ ____ figure ground 6 ____ ____ matching 6.1 ____ ____ lower case 6.2 ____ ____ upper case 6.3 ____ ____ lower to upper 7 ____ ____ auditory - initial consonants 8 ____ ____ auditory - final consonants 9 ____ ____ middle vowel CVC auditory 10 ____ ____ sound symbol	500 ____ ____ Fine motor - pencil 501 ____ ____ color within 502 ____ ____ fold 503 ____ ____ Fine motor - scissors 504 ____ ____ fine directionality 505 ____ ____ trace within shape 506 ____ ____ trace around shape 507 ____ ____ copy 508 ____ ____ shapes from memory 509 ____ ____ trace letters 510 ____ ____ name - left to right 511 ____ ____ first name 2 letters	400 ____ ____ word order 401 ____ ____ speaking 402 ____ ____ label 403 ____ ____ recall - retell 404 ____ ____ by mime 405 ____ ____ action words	200 ____ ____ oral commands 201 ____ ____ oral directions 202 ____ ____ interpret picture 203 ____ ____ listening - main idea 204 ____ ____ listening - details 205 ____ ____ sequence 206 ____ ____ classify	506 ____ ____ handle books 507 ____ ____ listen - repeat 508 ____ ____ rhyme 509 ____ ____ who, what, where 505 ____ ____ months, days, seasons
Teacher _____ Teacher _____ School Yr _____ School Yr _____ School _____ School _____ Grade _____ Grade _____	LEVEL 2	11 ____ ____ Blending CVC 11.1 ____ ____ left to right 12 ____ ____ short vowel, double cons 12.1 ____ ____ reg. name letters * 35 ____ ____ CVC 13 ____ ____ Catch * 71 ____ ____ one syllable "s" endings * 51 ____ ____ digraphs y short vowels * 52 ____ ____ clusters y short vowels * 63 ____ ____ clusters - short vowels * 64 ____ ____ clusters - short vowels * 72 ____ ____ clusters rhyming * 73 ____ ____ short vowels */65 ____ ____ (l) (s) blends 15 ____ ____ rhyming - (ing) (ang) endings 65.1 ____ ____ (r) blends 16 ____ ____ sound symbol 17 ____ ____ "e" control 18 ____ ____ generalizations (ee) (ay) (igh) 19 ____ ____ short vowels endings (ing) (s) (ed)	512 ____ ____ Print - name - letters 513 ____ ____ CVC moveable alphabet 514 ____ ____ lower case - print 515 ____ ____ upper case - print 516 ____ ____ copy experience story - 1st step 517 ____ ____ copy experience story - 2nd step 518 ____ ____ copy experience story - 3rd step 519 ____ ____ initial consonants - auditory 520 ____ ____ auditory - middle vowel CVC 521 ____ ____ consonant finals - auditory 522 ____ ____ print - spell - utility 525 ____ ____ print - spell - Teachers list 526 ____ ____ print - spell utility (teachers) 526 ____ ____ print - spell short vowel, double cons 527 ____ ____ print - spell one syllable short vowel - endings	406 ____ ____ listening - sentence has verb 407 ____ ____ telling - asking 408 ____ ____ describe 409 ____ ____ nouns as names 410 ____ ____ expand, N-V pattern 411 ____ ____ recall - retell 412 ____ ____ dictate 413 ____ ____ capitals 414 ____ ____ stress 415 ____ ____ punctuation	207 ____ ____ listen - recall - retell 208 ____ ____ classification 209 ____ ____ concepts 210 ____ ____ 2 step oral directions 211 ____ ____ written directions 212 ____ ____ sentences for answers 213 ____ ____ main idea 214 ____ ____ sequence 215 ____ ____ locate answers 216 ____ ____ conclusions 217 ____ ____ context clues	506 ____ ____ memory 507 ____ ____ picture dictionary 508 ____ ____ ABC order - 1st letter 509 ____ ____ index 510 ____ ____ title - locate table of contents 511 ____ ____ setting 511.1 ____ ____ listen - details
Teacher _____ Teacher _____ School Yr _____ School Yr _____ School _____ School _____ Grade _____ Grade _____	LEVEL 3	20 ____ ____ Recognition - Dolch words 29.1 ____ ____ Comparative - Superlative * 52 ____ ____ Consonant blends (final), "x" 21 ____ ____ Variant Sounds * 44 ____ ____ Vowel plus "r", "y" 22 ____ ____ Vowels (long) * 83 ____ ____ Final "e" (non-modifying) *.83 ____ ____ Final "e" (modifying) 22.1 ____ ____ Compound words * 78 ____ ____ 3 letter blends * 86 ____ ____ variant c (see 23)	528 ____ ____ Spell one-syllable digraph words (print) *29 ____ ____ Spell utility words (print) 530 ____ ____ Spell (print) one syllable words 531 ____ ____ Match cursive - manuscript words 532 ____ ____ Trace lower case cursive 533 ____ ____ Trace upper case cursive 534 ____ ____ Spell utility words (teachers) 535 ____ ____ Copy whole words (cursive) 536 ____ ____ Transpose 2 manuscript to cursive 537 ____ ____ Spell utility nouns (print or write) 538 ____ ____ Spell utility verbs (print or write)	416 ____ ____ Complete thoughts 417 ____ ____ Noun - verb sentence pattern 418 ____ ____ Action words (N-V pattern) 419 ____ ____ Nouns (N-V-N pattern) 420 ____ ____ Object (N-V-N pattern) 421 ____ ____ Simple sentences 422 ____ ____ Exclamatory expression 423 ____ ____ Antonyms (oral) 424 ____ ____ Synonyms (oral) 425 ____ ____ Sensory images 426 ____ ____ Apostrophe 427 ____ ____ Oral presentation 428 ____ ____ Articles 429 ____ ____ Logical order	218 ____ ____ Complex directions 219 ____ ____ Picture sentence clues 220 ____ ____ Context - inference 221 ____ ____ Classification * 75 ____ ____ Main idea * 50 ____ ____ Sequence * 37 ____ ____ Details 222 ____ ____ Conclusions	512 ____ ____ Library - non-fiction 512.1 ____ ____ Who, what, where 513 ____ ____ Read and share 514 ____ ____ Choral reading 515 ____ ____ Fiction - author 516 ____ ____ Simple table of contents 517 ____ ____ Biography - autobiography
Teacher _____ Teacher _____ School Yr _____ School Yr _____ School _____ School _____ Grade _____ Grade _____		23 ____ ____ Recognition - Dolch words *105 ____ ____ Diphthongs *117 ____ ____ Vowel teams (long "o") *118 ____ ____ Vowel teams (long "a") * 93 ____ ____ Vowel teams (long "e") *119 ____ ____ *102 ____ ____ Compound words *111 ____ ____ Irregular vowel teams (oo) * 96 ____ ____ Irregular vowel teams (au) * 99 ____ ____ Irregular vowel teams (ew) *104 ____ ____ Irregular vowel teams (ow) * 99 ____ ____ "ph" * 14 ____ ____ Vowels and consonants	539 ____ ____ Copy whole words (Cursive) 540 ____ ____ Transpose - manuscript to cursive * 54a ____ ____ Spell CVC words (print or write) * 54b ____ ____ Spell - double consonant endings (print or write) 541 ____ ____ Spell utility words (write or print) * 54c ____ ____ Spell - one syllable - short vowels (write) 542 ____ ____ Spell - write 15 utility * 54d ____ ____ Spell - write (blends - digraphs) 543 ____ ____ Spell - write (utility - teachers) 543 ____ ____ Abbrev. - sym (spell - write) * 54e ____ ____ Write and spell (endings) * 54f ____ ____ Write and spell (r-l-s blends) * 54g ____ ____ Write and spell (digraphs) * 54h ____ ____ Write and spell CVCe * 54i ____ ____ Write and spell 2 vowels together	____ ____ Complete thought ____ ____ Logical order * 31 ____ ____ Sentence 31.1 ____ ____ Add order - meaning 32 ____ ____ Nouns (N-V pattern) 32.1 ____ ____ Verbs (N-V pattern) 32.2 ____ ____ Nouns (N-V-N pattern) * 33 ____ ____ Punctuation * 34 ____ ____ Articles 431 ____ ____ Verbs (N-V-N pattern) 432 ____ ____ Conjunctions * 71 ____ ____ Writing * 51 ____ ____ Antonyms * 52 ____ ____ Synonyms * 53 ____ ____ Contractions 433 ____ ____ Homonyms 434 ____ ____ Writing 435 ____ ____ Adjectives	225 ____ ____ Complex oral directions 226 ____ ____ Complex written directions 225 ____ ____ Classification 226 ____ ____ Context clues * 60 ____ ____ Locate facts * 82 ____ ____ Main idea * 70 ____ ____ Conclusions 227 ____ ____ Listen - details	* 79 ____ ____ Table of contents * 95 ____ ____ Calendar */68 ____ ____ ABC - order 1st - 2nd 518 ____ ____ Listen - identify 519 ____ ____ Fiction - non-fiction 520 ____ ____ Choral reading 520.1 ____ ____ Crown composition 521 ____ ____ Dictionary
THIS RECORD SHOULD ACCOMPANY CUMULATIVE FOLDWHEN TRANSFERRED	LEVEL 4	* 97 ____ ____ Silent letters * 95 ____ ____ "ed" endings * 98 ____ ____ Dolch words				

PUPIL RECORD FORM
MATHEMATICS OBJECTIVES
GRADES K-8 (DRAFT)

HARTFORD PUBLIC SCHOOLS Hartford Connecticut © 1973

AREA / Level	Numeration & Miscellaneous	+ Addition	− Subtraction	× Multiplication	÷ Division	Fractions	Measurement (Inc. Money)	Geometry	Decimals & Percent	Graphs	Miscellaneous
10											
11											
12											
13											
14											
15											
16											
17											

	AREA / LEVEL	Numeration & Miscellaneous	Addition	Subtraction	Multiplication	Division	Fractions	Measurement (Inc. Money)	Geometry	Graphs	Miscellaneous
Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____ Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____	1										
Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____ Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____	2										
Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____	3										
Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____	4										
Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____	5										
Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____ Teacher ____ Teacher ____ School Yr ____ School Yr ____ School ____ School ____ Grade ____ Grade ____	6										
	7										
THIS RECORD SHOULD ACCOMPANY CUMULATIVE FILE WHEN TRANSFERRED	8										

*Decimals & Percent

INTERMEDIATE GRADE WORKSHOP

Schools to Visit

SCHOOL	WEEK-DAY	CLASS	PROGRAM
Barnard-Brown	Any but Wednesday	Teams	C.A. Math and Teacher-made
Dwight	Any	Adshade & LaBranche	Indiv. Reading Skills
Batchelder	Any A.M.	Hill and Solomon	C.A. and Math
Fisher	Any but Wednesday	Conover Lanier	C.A. AdHoc Tchr. Made
West Middle	Any	3-4 Team	Teacher-made skills
McDonough	Any	5-6 Open Plan	Teacher-made
Naylor	Any	Ashline Howley	C.A. Math

NAME_____ K

3-4 TRAINING WORKSHOP

OBSERVATION FORM -- 3-4 CLASSROOMS

Although you will observe variations in the procedures of the classrooms you visit, there are elements as indicated by the questions below, that should be common.

The spaces are for reactions, notes, etc. These observations will be reviewed by Friday during the "Homebase" session.

---

1. What diagnostic/prescriptive procedures were evident?

2. What record keeping system was in use?

3. Was the material self-correcting?

4. To what degree were varied size groups being used?

5. How did the teacher conference with pupils?

6. What did pupils do while waiting to be checked?

EVALUATION

INTERMEDIATE GRADE WORKSHOP

We would appreciate your comments and suggestions concerning the various activities of the workshop.

Please react to each item in the following way.

Rate each statement using the following scale:

1. Very helpful
2. Helpful
3. Undecided
4. Less than helpful
5. Very little help

For example, on a question about the information which was presented, if you felt that a particular presentation provided information which was very helpful, you would circle number (1) in the list of numbers next to the title. If you feel that the information provided was very little help, you would circle the (7). Please respond to all of the items in which you participated. Since seminars were optional and some of you were "signed-off" on some presentations, it is anticipated that not everyone will respond to all items.

Evaluation-Intermediate Grade Workshop

RATING SCALE:

1. Very helpful
2. Helpful
3. Undecided
4. Less than helpful
5. Very little help

1. Rate each presentation and seminar listed below. Rate each for usefulness, organization and length.

Presentation Title	Usefulness for the Classroom	Usefulness for the Classroom	Usefulness for the Classroom
Individualization Concepts	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Organizing Materials	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Diagnosis & Prescription	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Diagnosis & Prescription-Seminar	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Record Keeping & Objectives-C.A.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Instructional Management-Rdg. Seminar	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Record Keeping & Objs.- Math.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Inst. Management - Math Seminar	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Developing Attitudes	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Attitudes Seminar	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Bilingual Teaching Seminar	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Classroom Mgmt. Panel	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Materials Skills-Rdg. Seminar	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Learning Disabilities	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Learning Disabilities Seminar	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Health Education Seminar	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Transition	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

COMMENTS: _____

2. Rate Workshop instructional materials in terms of:

a. Availability of teacher-made materials for reproduction 1 2 3 4 5

b. number and variety of materials? 1 2 3 4 5

c. number and variety of commercial materials? 1 2 3 4 5

d. interest center organization? 1 2 3 4 5

e. Displays for interest and learning? 1 2 3 4 5

Comments: _____

_____

_____

3. Rate the assistance provided by the resource staff in terms of:

a. quantity of assistance provide d to participants 1 2 3 4 5

b. availability of resource staff? 1 2 3 4 5

c. knowledge and experience provided? 1 2 3 4 5

Comments: _____

_____

_____

4. Rate your classroom observations in terms of:

a. program understanding gained from observing a primary classroom 1 2 3 4 5

b. knowledge and ideas gained from observing an intermediate classroom 1 2 3 4 5

What impressed you the most? _____

_____

What did you like the least? _____

_____

5. Rate the three contracts in terms of:

Reading-Language Arts:
- As a guide to your learning 1 2 3 4 5
- Quality of items required 1 2 3 4 5
- Potential usefulness as a classroom technique 1 2 3 4 5

Math -
- As a guide to your learning 1 2 3 4 5
- Quality of items required 1 2 3 4 5
- Potential usefulness as a classroom technique 1 2 3 4 5

Mini-Action Plan -
- As a guide to your understanding 1 2 3 4 5
- As a guide for implementing procedures 1 2 3 4 5

COMMENTS OR SUGGESTIONS: _____

_____

_____

6. Rate the usefulness of the various options. Indicate which options used and circle the rating for each.

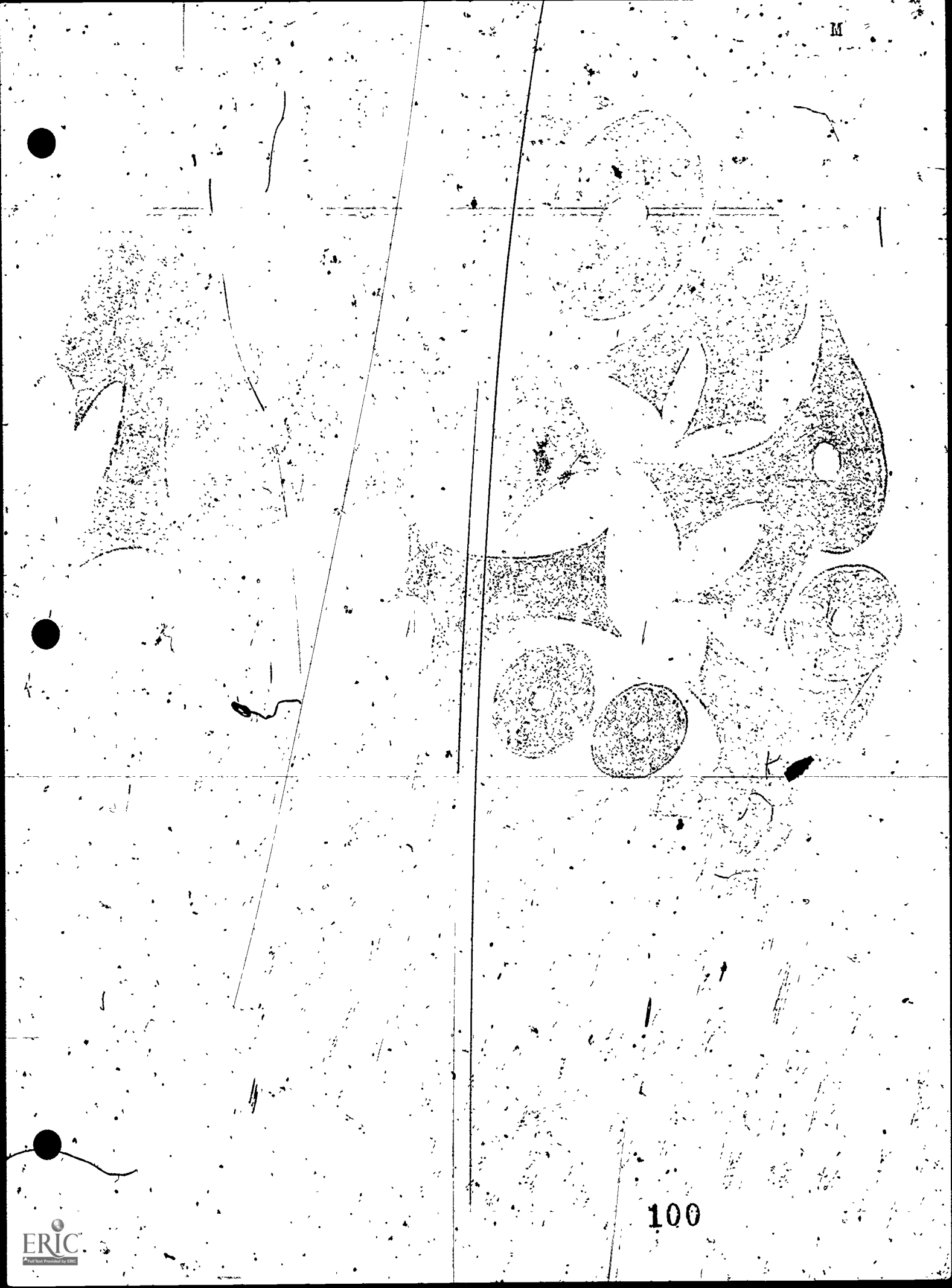
Option	Used	Not Used	RATING
T.I.L.C.			1 2 3 4 5
I.R.I.T.			1 2 3 4 5
Interest Centers-Reading			1 2 3 4 5
Interest Centers - Math			1 2 3 4 5
Interest Centers - Science			1 2 3 4 5
Interest Centers - Social Studies			1 2 3 4 5
Video Tape Presentation			1 2 3 4 5
Creating Materials			1 2 3 4 5
Other - which ?			1 2 3 4 5
_____			1 2 3 4 5
_____			1 2 3 4 5

COMMENTS OR SUGGESTIONS: _____

_____

_____

_____



INTERMEDIATE GRADES WORKSHOP

October 28, 1974

HOME BASE

Group I

Teachers: Fran Ladd
Vita Nyman

Bancroft Dawes
Victor Lambert
Helen Daniels
Elizabeth Deveaux
Hugo LaPenta
Judy Faticanti
Peter Bonee

HOME BASE

Group II

Teachers: Sherry Balfour
Baxter Atkinson

Peter Dawidowitz
Marguerite Jones
Karen Drum
Richard Freedman
Nancy Rosenberg
Auristel Castillo

HOME BASE

Group III

Teachers: Gordon Gross

Ruby Lee Amison
Jane Zak
Elizabeth Brown
James Burns
Alex Mankevich
Arthur Kurtzman

HOME BASE

Group IV

Teacher: Andrea Johnson

Marion McNeish
Edward Kerr
Francis Spencer
Mary Petrizzo
John Marciuccio
Marisel Sotomoyor

INTERMEDIATE TRAINING WORKSHOP

October 28, 1974

ARSENAL

Bancroft Dawes
Victor Lambert

BARBOUR

Helen Daniels
Elizabeth Deveaux

BARNARD BROWN

Marisel Sotomoyor

BATCHELDER

Marion McNeish

BURNS

Mary Petrizzo
John Marcuccio

DWIGHT

Judy Faticanti

FISHER

Peter Dawidowitz
Marguerite Jones

MICHAEL FOX

Nancy Rosenberg

HOOKER

Auristel Castillo

F. C. JONES

Ruby Lee Amison
Elizabeth Brown
Jane Zak

NAYLOR

Hugo LaPenta
Peter Bonee

RAWSON

Frances Spencer

TWAIN

Karen Drum
Richard Freedman

WEBSTER

James Burns

WEST MIDDLE

Alex Mankevich
Arthur Kurtzman

WISH

Edward Kerr

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:30	Introduction	"Home Base"		"Home Base"	"Home Base"
9:00		Presentation Diagnosis and Prescription: B. Wood	*Options . School Visitations . Work at Center	Presentation Developing Attitudes Evelyn Williams	Presentation Learning Disabilities: Recognizing and Handling F. Vincenzo
9:45 Tues. - Fri. (9:30 Mon.)		*Options Seminars: .Diagnosis and Prescription: ..Methods ..Grouping A. Cimochowski S. Raphael		*Options Seminars: .Attitudes .Bilingual Teaching Ideas Alberto Hernandez	*Options Seminars: .Learning Disabilities Ideas .Health Education H. Kycia
10:00	Presentation: Common Sense of Individualization H. Luccock				
10:30	Group I & II TILC Orientation Group III & IV			Presentation: (10:45) Classroom Management Panel A. Lehman A. Davis A. Minor	
11:00	Presentation: Group III & IV Organizing Materials G. Gross B. Atkinson	Presentation: Groups I & II Organizing Materials (Repeat)			Presentation: Transition G. Abery A. Johnson
12:00 (LUNCH)					

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
12:30		Presentation: Record Keeping & Objectives -- Communication Arts Alice Fraser	Presentation: Record Keeping & Objectives-Math I. Sinaguglia	*Options .Visitations .Work on Contract Seminars: .Material Skills A. Poch	1:00 - 1:30 "Home Base"
1:00	Groups I & II IRIT Orientation Groups III & IV TILC Orientation				
1:15		Groups III & IV IRIT Orientation			
		*Options Seminars: .Inst. Management Skills (Reading Contract) M. Fritz	*Options Seminars: .Inst. Management Skills (Math Contract)		
2:30	WRAP-UP	WRAP-UP	WRAP-UP	WRAP-UP	WRAP-UP

NOTE: The following are optional areas available each day:

...I.R.I.T.
...Interest Centers
...Work on classroom mini "action" plan
...Work on classroom layout
...T.I.L.C.
...V.T.R. presentation
...Visit to classrooms
...Laminating
...Creating Materials

M4

INTERMEDIATE GRADE WORKSHOP

Contract for Mathematics

Required Items

1. Demonstrate the ability to find and explain in the math spiral the following: levels, areas, coding (including decimal), blocks and the teaching order of objects.
   Done ☐
2. Select three math objectives in the spiral and identify in writing specific materials in your classroom that can be used to teach these objectives.
   Done ☐
3. Demonstrate how the Diagnostic Pretest by Curriculum Development or a similar test being used by your school can be used to determine placement and prescription for your students.
   Done ☐
4. Devise a math contract which would be suitable for your classroom.
   Done ☐
5. List five possible ideas for an interest center that you could set up in your classroom over a period of time and describe an activity for each one.
   Done ☐

ACTIVITIES Choice of Three

You must do three activities such as those listed below. You may add others as you see fit and/or make substitutions for the listed activities with home base approval.

1. Select an objective from the Math Spiral on graphing and create an activity to reinforce that objective.
   Done ☐
2. Make an activity for Math objective .071
   Done ☐
3. Make at least one Math activity and correlate it to another area such as reading, science, social studies, art, cooking, etc.
   Done ☐
4. Make an activity which teaches that the dollar is the base of our money system and correlate the activity to an objective in the math spiral.
   Done ☐
5. Make a measurement activity and correlate that activity to an objective in the math spiral.
   Done ☐

INTERMEDIATE GRADE WORKSHOP

Schools to Visit

SCHOOL	WEEK-DAY	CLASS	PROGRAM
Barnard-Brown	Any but Wednesday	Teams	C.A. Math and Teacher-made
Dwight	Any	Adshade & LaBranche	Indiv. Reading Skills
Batchelder	Any A.M.	Hill and Solomon	C.A. and Math
Fisher	Any but Wednesday	Conover Lanier	C.A. AdHoc Tchr. Made
West Middle	Any	3-4 Team	Teacher-made skills
McDonough	Any	5-6 Open Plan	Teacher-made
Naylor	Any	Ashline Howley	C.A. Math

NAME _____

3-4 TRAINING WORKSHOP

OBSERVATION FORM -- 3-4 CLASSROOMS

Although you will observe variations in the procedures of the classrooms you visit, there are elements as indicated by the questions below, that should be common.

The spaces are for reactions, notes, etc. These observations will be reviewed by Friday during the "Homebase" session.

---

1. What diagnostic/prescriptive procedures were evident?

2. What record keeping system was in use?

3. Was the material self-correcting?

4. To what degree were varied size groups being used?

5. How did the teacher conference with pupils?

6. What didpupils do while waiting to be checked?

INTERMEDIATE GRADE WORKSHOP

CONTRACT FOR READING - LANGUAGE ARTS

REQUIRED ITEMS:

1. Demonstrate the ability to find an objective in the C.A. Spiral and check it off on the record card.

   Done ☐

2. Select 3 or more objectives in the spiral and identify specific material in your classroom or (in the center) that pupils may use to master the objective.

   Done ☐

3. Develop a sample group and individual contract for work that could be used with pupils in your classroom.

   Done. ☐

4. Make a taped lesson for use in your classroom

   Done ☐

5. Make an audio card for use in your classroom.

ACTIVITIES: Choice of Three

You must do three activities such as those listed below. You may add others as you see fit and/or substitute for the listed activities with home base approval.

1. Make a bingo game using words from one of the reading/language arts objectives or words used in your classroom.

   Done ☐

2. Make an activity with a Science theme and correlate it to an objective on the C.A. Spiral.

   Done ☐

3. Make an activity with a Social Studies theme and correlate it to an objective on the C.A. Spiral.

   Done ☐

4. Make at least one activity to be used for creative writing.

   Done ☐

5. Make a set of flash cards or Go Fish or Concentration cards using words from your classroom work.

   Done ☐

NAME_____

SCHOOL_____

MINI ACTION PLAN

I. Are you familiar with your school plan (intended and actual procedures) for individualizing reading-language arts and math? If not, read it and compare it with present application.

II. Based on the school plan, your own background and knowledge acquired at this training session, describe briefly how you intend to implement individualization of reading-language arts and math in your classroom.

HARTFORD PUBLIC SCHOOLS

MEMORANDUM

TO: Workshop Participants October 20, 1974

FROM: Edwin M. Manson

SUBJECT: Intermediate Grades In-service Workshop

On behalf of the in-service workshop committee, I would like to welcome your participation. The committee has attempted to incorporate as many of the needs which they felt were being expressed by teachers and principals. This will become self-evident when you see the schedule on the first day of the workshop.

Workshop Content

The one-week session, though recognized as being brief, will provide participants with a number of choices and experiences. Major emphasis will be in the areas of reading-language arts and math.

Some of the presentation and interaction areas included are:

- Diagnosis and Prescription
- System-wide objectives and record keeping in reading and math
- Practical ideas for Instructional Management
- Developing Attitudes
- Learning Disabilities
- Helping bilingual students
- Health Education
- Creating materials in the Center and at T.I.L.C.

Due to the limited time for the workshop, the committee must request that you do the following prior to attending the workshop.

1. Observe a primary grade classroom for approximately one hour. The enclosed observation form will serve as a helpful guide. It should be completed and brought with you to the workshop for use during a discussion session on Tuesday morning. Arrangements for observing classrooms should be made through your school principal.

2. Know what materials are available to you in the reading-language arts (C.A.) and math areas in your classroom and school.

3. Re-read the "Action Plan" for implementing the individualized reading-language arts (C.A.) and math programs at your school. Your school principal and reading consultant can help with this.

Some General Information

1. Workshop location:

   Professional Development Center
   Amelia Annex
   41 Charter Oak Avenue
   Hartford, Connecticut

2. Parking: Plenty of parking anywhere in the yard.

3. Lunch: There are no lunch facilities. There will be one hour for lunch (the first day, anyway). If you bring your own, coffee and tea will be available or you can go to a nearby restaurant.

4. Enclosed is a list of materials that you may wish to bring that would be useful.

5. Dress comfortably.

EMM/par
Enc.

OBSERVATION FORM

1. List the various interest areas you see that have been established in the classroom.

2. How are materials coded? (How do children know where to replace the materials?)

3. What provisions are made for children storing their own personal property?

4. Tell about <u>one</u> activity that the teacher/paraprofessional did with the whole class.

5. Tell about two activities that the teacher/paraprofessional did with small groups.

6. Tall about <u>three</u> activities that children did individually.

INTERMEDIATE GRADES

3-4 In-Service Training Workshops

List of things you may have available at home (or school) to be brought in on the day of the workshop:

Magic Markers - assorted colors - fine and broad points

Stapler and staples

Colored pencils

Oak Tag - manilla and colored

Old workbooks (Language, Science, Social Studies)

Magazines

Contact paper (clear)

Three-ring loose leaf notebook

Clear Acetate (transparency) Film

Shopping bag for carrying materials

Mystik Cloth Tape (Assorted light colors)

Old Reading, Science, Social Studies Workbooks

Assorted (size) Boxes - Cardboard

PLEASE LABEL ALL YOUR MATERIALS!

DRESS COMFORTABLY!

10/15/74

TEACHER SELF-ASSESSMENT
3-6 Restructuring

TO TEACHERS:

We are trying to determine how you are doing and what we can do to be of further help. It would be appreciated if you would complete the information below and return it to the resource teacher by March 12.

Name: (optional)_____ Grade Level_____

School:_____

Area	IMPLEMENTATION LEVEL None	Started	Well Under Way
INDIVIDUALIZATION			
Diagnosis: Reading-Language Arts			
Prescription: Reading-Lang. Arts			
Diagnosis: Math			
Prescription: Math			
Ad Hoc Grouping			
Learning Options (materials and approaches)			
SCIENCE			
SOCIAL STUDIES			
MANAGEMENT APPROACHES			
Record keeping - Reading			
Record keeping - Math			
Instructional Contracts			
Interests Centers			
Organization of Materials			
Teaming			
ATTITUDINAL APPROACHES			
Interaction:			
pupil to pupil			
pupil to teacher			
teacher to teacher			
Pupil Involvement Class decision-making			
RECEIVED MATERIAL AND EQUIPMENT			
Needed for implementation			

ALTERNATE

INDIVIDUAL CONTRACT

NAME _____ WEEK OF _____

EXPERIENCE

1. Does the participant know the: C.A. spiral _____
   Math spiral _____
   on a level of application?

2. Does the participant know the record keeping system format and use?

3. Is the participants classroom self-contained? _____
   teaming (what area of specialization)? _____

4. What specific needs to be accomplished during the workshop are expressed by the participant ?

_____

_____

AREA	PARTICIPATION YES	NO
Individualization Concepts		
Diagnosis & Prescription		
Objectives & Recordkeeping - C.A.		
" " - Math		
Developing Attitudes		
Learning Disabilities		
Bilingual Teaching		
I.R.I.T. Orientation		
T.I.L.C. Orientation		
Organizing Materials		
Classroom Management (control)		
Transition		

OPTIONS

1. Activities only related to reading?
2. Activities only related to Math?
3. Activities related to Social Studies & Science?

- Participating in various seminars
- Creating learning materials

Intermediate Grade Teacher

OPINIONNAIRE

Background

This opinionnaire was adapted from a form which was developed by a representative group of Hartford teachers to examine another program. It is a sincere attempt to examine our program through the teacher's eyes.

Please check or complete the following

Grade level taught: Grade 3 ☐ Grade 4 ☐ Grade 5 ☐

Grade 6 ☐ Mixed age groups ☐ If mixed age group, which? _____

Present position: Teacher - ☐ Other - ☐ What? _____

Total years teaching experience (including current year) _____

Total years teaching in Hartford (including current year) _____

-Instructions-

This is a list of statements about teaching and learning. Please react to each of these statements in the following way.

Rate each statement using the following scale:

1. Strongly agree
2. Agree
3. Tend to agree
4. Undecided
5. Tend to disagree
6. Disagree
7. Strongly disagree

For example, if you strongly agree with a statement, you would circle number 1 in the list of numbers next to the statement. If you strongly disagree with the statement, you would circle the 7.

This is a survey of opinions. There are no "right" or "wrong" answers to any of the statements. Consequently, please express your own personal opinions about each of the statements, whether you think other people might agree with you or not.

Because this is a survey of personal opinions, please fill out this opinionnaire by yourself. Your name should not appear on these materials.

Q2

Rating scale:
1. Strongly agree
2. Agree
3. Tend to Agree
4. Undecided
5. Tend to disagree
6. Disagree
7. Strongly disagree

1.	Learning how to learn is more important than learning facts these days.	1 2 3 4 5 6 7
2.	The teacher should do less direct teaching and be more of an advisor, consultant and catalyst for learning.	1 2 3 4 5 6 7
3.	Teachers should be informed of the IQ scores and other ability scores of all students before a new school year begins.	1 2 3 4 5 6 7
4.	There should be set time blocks during the day for instruction in reading, math, etc.	1 2 3 4 5 6 7
5.	Obedience and respect for authority are the most important virtues schools should emphasize.	1 2 3 4 5 6 7
6.	It is important that the physical environment of the classroom be structured, such as by dividing the room into learning centers.	1 2 3 4 5 6 7
7.	Classroom chaos would most likely occur if children were allowed complete freedom to choose their own activities	1 2 3 4 5 6 7
8.	A school should know where any given child is every moment of the day.	1 2 3 4 5 6 7
9.	Students should not be allowed to use books or notes when taking tests.	1 2 3 4 5 6 7
10.	The classroom should not be a place where children play or wander.	1 2 3 4 5 6 7
11.	A child's experience in school should not include experiences with failure.	1 2 3 4 5 6 7
12.	Large group drill and practice should be abandoned as the primary approach to teaching.	1 2 3 4 5 6 7
13.	Students should be given more opportunities to tinker about and manipulate concrete objects.	1 2 3 4 5 6 7

Rating scale:
1. Strongly agree
2. Agree
3. Tend to agree
4. Undecided
5. Tend to disagree
6. Disagree
7. Strongly disagree

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14. Nearly all students can be trusted in most school situations without close supervision 1 2 3 4 5 6 7

15. It is more socially desirable to keep a child with his own age group, even if he has difficulty doing the work 1 2 3 4 5 6 7

16. In day-to-day classroom interaction, formal standardized tests are more valid estimates of the individual needs of children than are teacher's intuitive feelings. 1 2 3 4 5 6 7

17. Learning concepts and principles is more important than developing a positive self-concept or interest in learning. 1 2 3 4 5 6 7

18. Presenting content to students in great detail is not required for good teaching to occur. 1 2 3 4 5 6 7

19. There is probably no such thing as unique learning styles of individual children. 1 2 3 4 5 6 7

20. It is not particularly important for patents to know the philosophy and goals of a school. 1 2 3 4 5 6 7

21. Failure should not be counted against a child. 1 2 3 4 5 6 7

22. Most of the schools in America have become so strict and inflexible today that they are destroying children's spontaneity, curiosity and love of learning. 1 2 3 4 5 6 7

23. The classroom is no place for conflict, disagreement or argument. 1 2 3 4 5 6 7

24. A child must learn that sometimes his freedom must be limited so as not to interfere with the freedoms and rights of others. 1 2 3 4 5 6 7

25. Good interpersonal relationships among teachers may be the most critical aspects of successful team teaching in an open space learning environment. 1 2 3 4 5 6 7

26. The policy of schools should be free enough so that if a child did not want to work on a given day, he would not be pressured to do so. 1 2 3 4 5 6 7

Rating scale:
1. Strongly agree
2. Agree
3. Tend to agree
4. Undecided
5. Tend to disagree
6. Disagree
7. Strongly disagree

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27. In addition to official records, students should keep their own achievement records and accounts of what they are doing. 1 2 3 4 5 6 7

28. In any discipline, there exists some indispensable body of knowledge that every educated person should know. 1 2 3 4 5 6 7

29. Many different concurrent activities in a classroom actually hinder the productive learning behavior in children. 1 2 3 4 5 6 7

30. Schools should allow the child to be free to experience the world around him in his own way. 1 2 3 4 5 6 7

31. For learning to be more lasting, parents need to reinforce those behaviors the schools are teaching. 1 2 3 4 5 6 7

32. Daily compulsory school attendance is vital for every child whether he wants to be in school or not. 1 2 3 4 5 6 7

33. Schools should teach students the techniques of taking tests. 1 2 3 4 5 6 7

34. Teachers should be less concerned about students covering material in a given curriculum. 1 2 3 4 5 6 7

35. When more than thirty students are grouped together in the same physical area, the amount of learning that can take place decreases. 1 2 3 4 5 6 7

36. Teachers should allow children much more freedom to choose their own learning activities during the day. 1 2 3 4 5 6 7

37. Daily time schedules are necessary in school operation. 1 2 3 4 5 6 7

38. Grades are the most effective ways to motivate students. 1 2 3 4 5 6 7

39. Teachers should be more concerned about students defining and pursuing their own goals. 1 2 3 4 5 6 7

40. Most schools today do not put the emphasis upon the child learning, but rather on the teacher teaching. 1 2 3 4 5 6 7

Rating scale:
1. Strongly agree
2. Agree
3. Tend to agree
4. Undecided
5. Tend to disagree
6. Disagree
7. Strongly disagree

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41. Pupils can behave themselves without constant supervision. 1 2 3 4 5 6 7

42. As instructional leaders of schools, principals should spend much more time in the classroom. 1 2 3 4 5 6 7

43. In learning, failure is as important as success. 1 2 3 4 5 6 7

44. Getting good grades should be the most important goal for the majority of our youth while they are in school. 1 2 3 4 5 6 7

45. In most cases, the exertion of pressure to learn on children will not adversely affect their attitudes toward learning. 1 2 3 4 5 6 7

46. Parents should be kept out of the administration of the school. 1 2 3 4 5 6 7

47. Most children learn because they are afraid of failing, or the consequences of failing. 1 2 3 4 5 6 7

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TEACHER QUESTIONNAIRE

Grade_____ School_____ (Optional)

Intermediate Grade Restructuring

Compare your class on each of the following items. Think of how the students were at the beginning of the school year. Rate them as a group by circling the appropriate number in the left hand column. Now, think of how they are at this time of the year. Rate them again as a group by circling the appropriate number in the right hand column.

September				May		
Low	Avg.	High		Low	Avg.	High
1	2	3	a. Students are placed at their level of competency which allows them to succeed.	1	2	3
1	2	3	b. Students check their own work.	1	2	3
1	2	3	c. Students know and understand their instructional goals.	1	2	3
1	2	3	d. Students are allowed to choose from available materials.	1	2	3
1	2	3	e. Students require directions before they will attempt to do an activity.	1	2	3
1	2	3	f. Students are given clear information on what to learn.	1	2	3
1	2	3	g. Students are allowed to successfully complete one task before going on to another.	1	2	3
1	2	3	h. Students are given responsibility for caring for materials in the room.	1	2	3
1	2	3	i. Students are allowed to choose the order in which they do activities.	1	2	3
1	2	3	j. Each student proceeds at his own rate.	1	2	3
1	2	3	k. Each student works at his own level of competency.	1	2	3
1	2	3	l. Different ways of learning are available to students.	1	2	3
1	2	3	m. Flexible groupings are utilized.	1	2	3

For the following compare your present class at this time of the year with your class last year. For each item, check the best statement listed below that item.

1. Each student proceeds at his own pace.

Better than last year ☐
About the same as last year ☐
Worse than last year ☐

R1

2. Student interest is

- Better than last year ☐
- About the same as last year ☐
- Worse than last year ☐

3. Classroom discipline problems are

- Less than last year ☐
- About the same as last year ☐
- Worse than last year ☐

4. Student achievement in reading and math is

- Better than last year ☐
- About the same as last year ☐
- Worse than last year ☐

5. The number of students who received failing marks is

- More than last year ☐
- About the same as last year ☐
- Fewer than last year ☐

6. The number of students who should be recommended for retention is

- More than last year ☐
- About the same as last year ☐
- Fewer than last year ☐

What are your thoughts on the following?

	Yes	No
1. Whole-class instruction is more effective for student learning.	___	___
2. Teachers were involved in the decisions which led to the teaching procedures being used.	___	___
3. Individualization of student learning is more difficult for teachers to achieve.	___	___
4. The training program should be given to all teachers.	___	___
5. Students obtain greater academic achievement through individualized approaches to learning.	___	___
6. The materials and equipment which teachers were able to order improved the learning possibilities for students.	___	___
7. The communication arts packets and/or mathips are used in my class.	___	___
8. The systemwide reading-language arts and/or math spiral(s) have been followed.	___	___