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ABSTRACT

This report discusses one elementary school's implementation of a system of teaching and testing by objectives in compliance with a Michigan State Board of Education accountability model. The model used by the school called for (1) goals developed by each building; (2) performance objectives identified for subdivisions of schools, for teachers, and for students; (3) a survey and needs assessment; (4) delivery systems analysis (diagnostic, prescriptive, delivery); (5) an evaluation and testing process; and (6) recommendations for improvement. Attachments contain statistical and process information including (1) a school profile -- statistics report, (2) student profiles -- matrix assessment criterion for these objectives, and (4) survey samples. (JF)

WAYNE-WESTLAND COMMUNITY SCHOOLS

"Accountability Model Pilot School Report"

P.D. GRAHAM ELEMENTARY SCHOOL

Submitted to
STATE BOARD OF EDUCATION
State of Michigan

June, 1972

Submitted by:
Miss Muriel VanPatten
Principal

ACCOUNTABILITY MODEL PILOT SCHOOL

REPORT

to

THE STATE BOARD OF EDUCATION

from

P. D. GRAHAM ELEMENTARY SCHOOL

WAYNE-WESTLAND COMMUNITY SCHOOLS

June, 1972

Submitted by,

Muriel VanPatten
Principal

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I. INTRODUCTION

STATEMENT OF TASKS: To develop and implement a system of teaching and testing by objectives as outlined by the State Board of Education Accountability Model.

GENERAL STATEMENT

The Wayne-Westland Community School's Board of Education has made a commitment to individualized instruction and accountability. The district's Division of Instruction received Board commitment and approval for the document, GOALS, OBJECTIVES and ACTIVITIES for ELEMENTARY CURRICULUM. Elementary schools are directed to mo e systematically to assess their present instructional program and to establish a process that will facilitate making the changes necessary to reach a goal of individualization that is commensurate with the district's common curriculum goals:

1. Development of excellence in skills of communication.
2. Development of a general motivation to learn.
3. Development of emotional, mental and physical powers.
4. Development of positive attitudes and security in achieved skills necessary for future growth endeavors.

The systematic support system to use in bringing about needed change is consistent with the Michigan State Department of Education's accountability design:

1. Each building should develop goals.
2. Performance Objectives should be identified for subdivisions within the school for teachers and for individual students.
3. A survey and following needs assessment should be made to determine what is needed to bring optimum energy to bear on the learning program in a building.
4. Delivery systems analysis---(diagnostic, prescriptive, delivery)---should be made.
5. Evaluation and testing process should be part of the program.
6. There should be a systematic format for making recommendations for improvement.

The document clearly identifies the responsibility for decision making and program planning at the building, (and/or units within a building as they come to be identified internally), using whatever process is convenient, expedient and productive. Also emphasized, as a visable component of the elementary school planning team, will be the parents and other non-educators from the school's attendance area.

It is important to emphasize the cooperative effort and mutual commitment of our Central Office, Board of Education, and the P. D. Graham School to individualized instruction and to demonstrate accountability.

Each staff member of P. D. Graham School is personally committed to developing an individualized and personalized program. Our philosophy

is Humanistic. Our decisions have been guided by the Educational Philosophy of Continuous Progress as defined by Dr. John Goodlad. We believe that success promotes more success; that well defined responsibility within the limits of readiness of the learner promotes self reliance and a cooperative spirit; that differences provide richness; that many alternatives must be available for the student's learning plan in staffing, time and materials; and that teachers are and should be responsible for making decisions regarding curriculum. We are learning to manage this philosophy through the I. G. E. (Individually Guided Education - Multi-Unit School - Kettering Foundation) process.

The P. D. Graham School is organized into multi-aged units. Primary units include 5, 6, 7, 8, and 9 year olds. Intermediate units include 8, 9, 10 and 11 year olds. Children are assigned to units based on a mix (or difference) in age, sex, background, race, ability, achievement and interest (completely heterogeneously grouped). Each unit is team taught. Teams of teachers are also selected on a basis of differences: experience, academic training, interest areas, sex, etc. The staff is organized by differentiated roles and functions:

<table>
<tr><td colspan="8">Vertical Differentiation</td></tr>
<tr><td>Certified Staff:</td><td colspan="7">Principal
Assistant Principal
Unit Leaders
Team Teachers
Instructional Improvement Committee (Decision making body)</td></tr>
<tr><td>Support Staff:</td><td colspan="7">Student Teachers
Para-professionals
Voluntary Aides
Mini Teacher - Jr. H.S. Students
(Cluster program from Mich. State University)</td></tr>
<tr><td colspan="8">Horizontal Differentiation</td></tr>
<tr><td colspan="8">Teams and task force committees are attaining organizational patterns to reduce duplication of effort and to provide maximum expertise. The following represents areas involved:</td></tr>
<tr><td>Tutorial</td><td>Small group</td><td>Large group</td><td>Diagonsis prescription</td><td>Content areas</td><td>Directed teaching</td><td>Discovery teaching</td><td>Etc.</td></tr>
</table>

Unit meetings are designed to set unit or program objectives, design program (delivery system), evaluate program and to meet immediate team needs (situational meetings). We utilize a highly diversified approach: multi-media, multi- text, and multi-student learning plan. Time to plan is of utmost necessity. One way that has helped us provide time for planning has been a field test of an irregular schedule for two days each week. On Tuesdays and Thursdays children are in school for four and a half (4½) hours (8:30 a.m. to 1:00 p.m.). Tuesday, 1:00 p.m. to 4:00 p.m. is used for team and individual teacher planning. Thursday, 1:00 p.m. to 4:00 p.m. is used for team planning and reporting to parents (parent conferences). This irregular schedule has been in effect since March 14, 1972.

We believe this organizational design facilitates the achievement of our educational goals and objectives for children more effectively than the traditional graded self-contained plan.

This report will cover our status of implementation of the task (to develop and implement a system of teaching and testing to objectives as outlined by the State Board of Education Accountability Model) with specific reference to the most pressing problem, the time and the cost for training that is required to implement the task. In order to accomplish the task some means of adjusting the State required instructional schedule of 900 hours and 180 days per year, and/or finanical assistance to provide for training of field educators.

Five attachments are included of statistical and process information. They are:

ATTACHMENTS

I. School profile: Statistics report

II. Student profiles: Matrix reports
- Exhibit #1 Primary: 3rd year student (2nd grade)
  - Mathematical Skills
  - Communication Skills
- Exhibit #2 Intermediate: 5th year students (4th grade)
  - Mathematical Skills
  - Communication Skills

III. Objectives

IV. Survey Samples
- Exhibit #1 - Students
- Exhibit #2 - Staff
- Exhibit #3 - Parents

V. P. D. Graham Section 3 Program: 1973-74

VI. Accountability Model Report to P. D. Graham I.I.C. and WWCS Curriculum Department

II. ANALYSIS OF PROCESS OF DEVELOPMENT AND IMPLEMENTATION

The combined effort of the Division of Instruction and the P. D. Graham staff has encompassed each section of the accountability model. There is no question that educators have the desire and have either the ability or can be re-trained for the skill needed, but the harassing problem is in the cost of in-service for re-training and in the time required for the total process.

A. GOALS

The P.D. Graham building goals are compatible with goals of the state's and district's. The building goals were developed by the staff with the assistance of central office curriculum specialists.

GOALS

1. Students should demonstrate by their behavior and attitude a positive self-concept and respect for others.
2. Students should demonstrate by their behavior and attitude, respect for their property and the property of others.
3. Students should be able to clarify their own values and act upon them, and respect the values of others.
4. Students should learn to understand and appreciate the democratic process.
5. Students should learn to appreciate leisure time and use it effectively.
6. Students should develop skills in inquiry and learn to be self-directing in study.
7. Students should use problem-solving techniques.
8. Students should learn to develop their aesthetic sense.
9. Students should have an acceptable command of written and oral English.
10. Students should read with understanding, ease and enjoyment.
11. Students should comprehend and demonstrate through computation basic skills in mathematics.
12. Students should develop psycho-motor skills.
13. Students should learn to distinguish between opinion and fact.

LANGUAGE ARTS GOALS

1. The learner should demonstrate evidence of on-going progress in the basic reading skills.
2. The learner should develop the ability to communicate his ideas to others through one or more learning channels.
3. The learner should develop resourcefulness in locating information.
4. The learner should develop the ability to process information through one or more learning channels.
5. The learner should be able to interpret and evaluate information he receives from all media.
6. The learner should be enriched by his experiences in reading.

MATH GOALS

1. The learner should demonstrate computational achievement through exercises of simple recall and exercises of routine manipulations.
2. The learner should demonstrate comprehension of mathematical concepts and processes through verbal and symbolic communication
3. The learner should demonstrate the application of computational processes and concepts in problem - solving, making comparisons, interpreting data and forming conclusions.
4. The learner should demonstrate the ability to analyze new situations and apply previous knowledge to creative problem solving.
5. The learner's attitude should be enhanced as he becomes comfortable with the cognitive levels of Math, and grow in self-concept through interest, and accomplishments.
6. The learner should develop an appreciation of mathematics as a useful tool, as an art and finally as a communicative occupation.

SCIENCE GOALS

1. Children need value goals, respect for living things, commitment to the scientific processes and a concern for conservation.
2. Children need to develop special interests which should result in productive leisure time activities.
3. The teaching of process skills (inquiry skills) should receive a major emphasis.

The specific objectives for the process teaching are present below:

1. The learner should develop an understanding of classifying from one stage to a multi-stage objective
2. The learner should demonstrate ability to make statements of observations obtained by using several senses.
3. The learner should be able to distinguish between pure observations and inferences based upon observations and experiences.
4. The learner should make predictions based on systematic observations using graphs and past experiences.
5. The learner should be able to recognize the significant variables in a simple investigation and select one variable and use it as a control.
6. The learner should be able to describe in a few sentences the information shown on a table of data or graph.
7. The learner should be able to construct a hypothesis that is a generalization of observations or of inferences and devise simple tests to validate the hypothesis.
8. The learner should be able to demonstrate adequately the ability to describe a procedure, object of concept in a context which permits others to make decisions. Example - giving directions.
9. The learner should be able to identify a problem, construct a hypothesis and design tests for collecting data to test the hypothesis.
10. The learner should acquire the process goals listed above, by being involved in activities that are chosen from a variety of science content areas.
11. The learner should be able to make estimates and simple measurements of length, volume, area and mass.

SOCIAL STUDIES GOALS

Following are Broad Social Studies Goals taken from MACOS and Guidelines from the National Council of Social Studies.

1. To give our pupils respect for and confidence in the powers of their own minds.
   To conduct classroom discussions in which youngsters learn to listen to others as well as to express their own views.
2. To extend that respect and confidence to their power to think about the human condition, man's plight and his social life.
3. To provide a set of workable medels that make it simpler to analyze the nature of the social world in which we live and the condition in which man finds himself.
   To encourage children to reflect on their own experiences.
4. To import a sense of respect for the capacities and humanity of man as a species.
5. To create a new role for the teacher, in which the teacher becomes a resource to children rather than only an authority.
6. To leave the student with a sense of the unfinished business of man's development.
7. To teach a research methodology where children can:
   a. Look for information to answer questions they have raised.
   b. Use the framework developed in the course and apply it to new areas.
   c. To initiate and develop in youngsters a process of question posing (the inquiry method).
   d. To help youngsters to develop the ability to use a variety of first-hand sources as evidence from which to develop hypothesis and draw conclusions.
   e. To legitimize the search; that is, to give sanction and support to open-ended discussions where definitive answers to many questions are not found.

B. OBJECTIVES AND LOG OF EVENTS

Performance objectives were developed by task force committees that included district teachers and were directed by the curriculum department's specialists.

See attachment III: Objectives. Student results are reported on the student matrix forms (Attachment II). The report gives the number and percent of students mastering the objectives. Next year it would be valuable to include information corresponding to number and percent of month for month growth.

The P.D. Graham staff taught and tested to the objective with Section 3 students only. These objectives will be revised and extended in scope as the objectives need to be more comprehensive and decisive. This will be accomplished by the district's task force committees for the 1972-73 school year.

For State reporting purposes, for the intention of developing an in-service accountability model for the P.D. Graham staff, and finally for the dividends derived by analysis of the results for the staff and the children, we selected two units to record and report progress. The details of this process are reported in attachment VI: Accountability Report with Recommendations.

During the 1972-73 school year the objectives developed for Section 3 need to be used for all students at the P.D. Graham school. In addition the word attack and study skill objectives in the Wisconsin Read Management system will be implemented, tested and reported in June, 1973.

The P.D. Graham staff has received in-service in teaching and testing to objectives. Our goal for ourselves at P.D. Graham is that the staff will:

1. Be able to write objectives in the three learning domains: cognitive, affective and psycho-motor.
2. Be cognizant of the rational sequence of skills in reading and mathematics; to be able to professionally determine the appropriateness of test results; select appropriate objectives established in existing programs and modify objectives when appropriate.

It is impossible to separate the in-service log related to objectives and to the specific task of this report. A listing of in-service and other pertinent meetings, noting the resources and cost are included in the log of events that follows:

Log of Events from August 1970 to June 1972.

Time Line

Date	Area	Cost	Comments
Aug. 1970 to Jan. 1972	Staff in service: Staff resources inventory Selection: teammates Humanistic Philosophy J. Goodlad's philosophy of continuous progress Multi-unit organization Identifying student needs Designing learning plans Individualizing & personalizing content areas Differentiated staffing design 1. Roles & functions 2. Time Space Personnel Internal record keeping Assessment and Accountability 1. Cognitive 2. Affective Staff visitations to D.S./ non-graded schools	$16,200.00 for the year and a half period. In addition: six (6) 1/2 day district workshops. Teachers volunteered five (5) half days, in Aug. 1970.	Funding through the Wayne County Intermediate School District's Differentiated Staffing Project which included In-service for total staff (Certified, para-professionals, student teachers and parents).
Jan. 26, 1972	State Department's letter of invitation: Accountability Model	None	Received with positive acceptance
Feb. 1, 1972	Discussed State invitation and the accountability model with P.D. Graham staff.	None	Received with positive acceptance
Feb. 1, 1972	Student Opinionnaire	None	See Attachment 4

Date	Area	Cost	Comments
Feb. 11, 1972	In-service: Certified and para-professional 1. Teaching to objectives in reading & math 2. Matrix recording 3. Glasser techniques	1/2 day district workshop Consultant: Ms. Elizabeth Mahoney, Glasser associate $400.00	Objectives were designed by task force committees with the Central Office curriculum coordinators directing the activity. Differentiated staffing project covered the $400.00 fee.
Feb. 18, 1972	Parent Committee meeting to discuss: 1. Accountability model & our involvement 2. Section 3 3. Individually Guided Education (I.G.E.) 4. Tuesday-Thrusday schedule - children released at 1:00 p.m. (4½ hour instructional day)	None	Very positive--all areas Tues., 1:00 - 4:00 Team Planning Thurs., 1:00 - 4:00 Parent Conferences
March 24 1972	Parent Committee Tues. - Thurs. schedule	None	Positive -- This irregular schedule is explained on page 4
April 6 1972	Staff Questionnaire, D.S. project	None	See Attachment IV
April 7 1972	Staff Advisory (IIC) 2nd draft - goals	None	
April 14-15, 1972	Staff Advisory with Central Office coordinators 1. Review of State cognitive goals 2. Review of State task force committee work on objectives 3. Finalized P.D. Graham goals & broad objectives in reading, math, social studies & science	$294.00	Very positive reactions Cost covered by the Differentiated Staffing project.

Date	Area	Cost	Comments
April 26, 1972	In-service	$143.00	The Consultant, Dr. M. Franklin, observed in classrooms and met with teams of teachers to evaluate program. Cost covered by the Differentiated staffing project.
April 27, 1972	In-service Certified and para-professionals Part I. Multi-unit school and unit meetings A. Objective B. Design C. Situational D. Assessment Part II. Teacher-made materials	1/2 day district workshop $143.00 no cost	Routine staff reaction Consultant: Dr. M. Franklin, University of North Carolina Cost covered by the Differentiated Staffing project. Consultant: Mrs. Diana Geddes Wayne County Intermediate School District Staff
May 19, 1972	Goals & broad objectives in reading, mathematics, social studies, and science sent to all parents - comments were requested.	None	Few reactions returned - 5% all were positive.
May 31, 1972	Staff Dinner Meeting with Dr. Porter, on Accountability Model	State covered the cost	Positive reaction
June 7, 1972	Advisory Staff Section 3 program: Evaluation and recommendations	None	
June 19, 20, 21, 22, 1972	1. Matrix reporting 2. Team needs assessment: cognitive 3. Team delivery systems assessment alternatives and priorities 4. Team recommendations (Attachment VI)	5 teachers $7.00 hour 13 hours each $385.00 Section 3 funds	Very positive response

Date	Area	Cost	Comment
July 18 or 19, 1972	Report to State Board		

C. NEEDS ASSESSMENT: CRITERION REFERENCED TESTS

We need to develop Criterion Referenced tests to include:

1. Revised objectives - more comprehensive
2. Sampling of the objectives for pre-test for criterion placement
3 Indexed mini post-tests for criterion evaluation

In 1971-72 the P.D. Graham teachers relied on the pre- and post-tests in programmed materials (i.e. - Continuous Progress Labs, SRA, Holt-Rinehart and Winston, Scott Foreman etc.) and teacher made assessment instruments.

D. DELIVERY SYSTEM ANALYSIS

In-Service -

In-service for the P.D. Graham staff has been unusual in scope and funding. The Wayne County Intermediate School District was funded for the Differentiated Staffing Proposal. They invited the P.D. Graham School to participate in the project.

The in-service provided training in Continuous Progress Educational philosophy, learning and teaching strategies and techinques in individualizing and personalizing curriculum and instruction. The in-service included, but did not focus on, the teaching and testing to objectives.

District Leadership -

The Wayne-Westland Curriculum Division has provided exceptionally good guidance and direction in the development of a management of objectives system. This system needs refinement and the plan for 1972-73 is discribed in:

E. Testing and Evaluation
and
F. Recommendations

The P.D. Graham staff used the District's 1971-72 Management system for the Section 3 students. Training will be needed for all units to implement the district's management system for all students in the P.D. Graham School

E. EVALUATION AND TESTING

The initial assessment system for the state accountability model at P.D. Graham was tied into the instructional objective package relating to the cognitive (math, reading) section of the Michigan Comman Goals Booklet. The first step in this program was to tie the system into a standardized battery (consistent with State Board adoption) having the availabiltiy of a comprehensive item analytic output.

It was the feeling that testing would be meaningless and useless unless it could be closely tied to the instructional process. This procedure was initiated with summarative standardized assessment and at the same time, on-going development of a more formative instructional assessment program.

During our first year of development a framework built around "standardized pupil item reports", and discipline objective manuals was structured. The combination of these items moved us one step closer to the identification of learning difficulties. The specific framework operated as follows:

> The Pupil Item Report was a record of individual responses by category coded items for each subtest. As a parallel to the Pupil Item Reports, the Discipline Objective Manual was produced. There were various objective manuals depending upon the level selected. The format of the manual was as follows:
>
> A. Umbrella Objective - overall objective in reference to the skill area tested.
> B. Level - reference to grade indication or assessment identification.
> C. Category Code - a code keyed for assessment topic symbols on the Item Report.
> D. Program Objective - an objective consistent with basic skills which are to be developed.
> E. Assessment Criterion - a standard which can be used to assess the program objective at various points in time.
> F. Instructional Activity - a learning activity parallel to the Program Objective which may be used in its development. This in no way is meant to limit the instructional activities. It is our intent that teachers broaden this column based on teacher suggestions and further research.
>
> It was the intent that these documents (Pupil Item Report, Discipline Objective Manual) be used in concert to implement this system of instructional management. The category codes were related to groupings of at least four items listed on the Pupil

Item Report. An 80% mastery level was chosen for the accomplishment audit. In addition a Pupil Profile Matrix was used to expeidte record keeping procedures.

However, the limitation of this system is that it operates at a survey level and for a better program it must be taken one step further. Ultimately we need specific identification of learning difficulties and planning re-teaching. Therefore, we are currently in the process of broadening the objective, assessment, and instructional banks. Thus, the end result should be a more comprehensive instructional management system composed of both formative and summarative instructional - assessment programs.

F. RECOMMENDATIONS FOR IMPROVEMENT

1. Recommendations for Low Achievers:

   The P. D. Graham building recommendations are included in Attachment V. Section 3 Program.

   Unit recommendations are included in Attachment VI: Accountability Model, report to the P.D. Graham IIC and the WWCS's Curriculum department.

2. District Objectives and the Management System:

   Our district is now in the process of developing Criterion Referenced Tests. These tests will be implemented during the 1972-73 school year to include:

   1. Revised objectives - more comprehensive
   2. Sampling of the objectives for pre-test for criterion placement
   3. Indexed mini post-tests for evaluation

   The P.D. Graham staff will pilot the Wisconsin Read Management System. This will include teaching and testing to Word Attack and Study Skills objectives. The system includes a multi-media, multi-texted approach.

3. The following Time-Line represents tasks the P.D. Graham staff will implement during the 1972-73 school year:

Date	Area	Cost	Comments
Aug. 28, 1972	IN-SERVICE: Certified Staff Implementation of the Wisconsin Reading Management System: Teaching & testing objectives utilizing a multi-media, multi-test delivery system	$1,134.00 Section 3, Title 1 and D.S. Funds	
Aug. 29, 30, 31, Sept. 1 1972	IN-SERVICE: Unit leaders Writing Performance Objectives Unit Organization	$1,176.00 Section 3, Title 1 funds	
Sept. 1972	TRAINING Certified Staff Unit objectives and process objectives	None	Measured by the criteria stated in the State's Model for in-service of objectives

Date	Areas	Cost	Comments
Oct. 1972	In-service keading Management "Wisconsin Read" 4 staff members	$500.00	Training of Trainers Program. Research and Development Department: University of Wisconsin in cooperation with I.G.E.
Oct. 1972	In-service: Certified Staff Wisconsin Management System	$1.134.000	

By the end of the 1972-73 school year, we should have developed:

1. Performance Objectives for unit sub-divisions with the building.
2. Implemented the Wisc.nsin Read Management system.
3. Implemented the district's mathematics and comprehension management system.
4. Continued development of packaged learning centers.
5. Continued implemention of skill centers.
6. Refined the record keeping model (student contracts, logs, individual profile and group matrix reporting).
7. Objectives for Social Studies, Science, Art, Music and Physical Education.

District Criteria for evaluation of changed student achievement:

1. 80% of the students in the P.D. Graham School who have been in the system for at least three consecutive years and are of average ability will test at grade level on a standardized achievement test in reading comprehension and computation skills.
2. Survey, elementary students on a statistical sampling process basis to determine that at least 80% can read a paragraph and answer 4 of 5 questions correctly concerning the content of the paragraph.

4. Time and Resources:

Two major problems for administrators and teachers to complete their tasks are:

1. Preparation and planning time
2. Cost of consultants
3. Cost of teacher released time

We have found the following means helpful:

1. District In-service days (usually 3 or 4 half days per year)
2. District task force committees; } Released time, or payment
3. Building task force committee; } in full or part, or no reinbursement.

4. Irregular instructional schedule: field tested at P.D. Graham. Details described on page 2 in the Introductory section.

It should be noted that even with the above efforts the P.D. Graham staff works on the average of ten hours per day, meeting before school, during lunch and after school. There have been very few if any week-ends that a teacher or a team of teachers have not signed out keys for Saturday and/or Sunday work.

III. SUMMARY

The status of the project and its potential success depends on the capability of the local district to provide the resources and the time for educators to research, develop, implement, evaluate and re-train to meet the task of teaching and testing to objectives. To implement this task in a humane learning environment requires the ability to manage the instructional program (individualized and personalized) within a wide diversity of alternatives (multi-media, multi-text, multi-teaching and learning strategies). This clearly points to the delivery system as the crucial step that must be taken simultaneously with teaching and testing to objectives.

Teaching in the mind of the public, is the time the teacher spends with children from 8:30 a.m. to 3:00 p.m. They fail to recognize that additional hours are required to implement the accountability model. The time is needed for diagnosing, prescribing and evaluating for individualizing instruction which results in teachers needing to modify or change teaching-learning strategies. The teachers are faced with a complex task as these needs occur simultaneously. A solution which might alleviate the problem, would be flexibility of the current State requirements of 900 instructional hours and 180 days per year.

In conclusion I would like to express my appreciation to our distict for their assistance and support, and to the State Department of Education for their guidance in the implementation of the Accountability Model.

ACCOUNTABILITY MODEL PILOT SCHOOL
REPORT

to

THE STATE BOARD OF EDUCATION

from

P.D. GRAHAM ELEMENTARY SCHOOL
WAYNE-WESTLAND COMMUNITY SCHOOL DISTRICT

June, 1972

ATTACHMENTS:

I. School Profile: Statistics Report
II. Student Profiles: Matrix Report
   Exhibit #1 - Primary: 3rd year students (2nd grade)
   Mathematical Skills
   Communication Skills
   Exhibit #2 - Intermediate: 5th year students (4th grade)
   Mathematical Skills
   Communication Skills
III. Objectives
IV. Survey Samples
   Exhibit #1 - Students
   Exhibit #2 - Staff
   Exhibit #3 - Parents
V. P.D. Graham Section 3 Program: 1972-73
VI. Accountability Model Report to P.D. Graham Instructional Improvement Committee and Wayne-Westland Community Schools Curriculum Department

Attachment 1

REPORT

Part 1 - SCHOOL STATISTICS (Use full time equated figures for counting staff)

1. 25 Number of Teachers
2. 10 Number of Para-professionals
3. 42 Number of Volunteers 2½ Number of Hours Worked Per Week
4. 783 Number of Students
5. 25 Number of Rooms
6. 31/1 Pupil/Teacher Ratio
7. 2 Number of Administrators
8. 5.40 Number of Specialists

1	a. Music	.50	f. Reading Specialist
1	b. Art	.20	g. Speech Specialist
1	c. Phys. Ed.	1	h. Evaluators
.20	d. School Nurse	.30	i. Social Worker
--	e. Community School Agent	.20	j. Type C Teacher

9. Does the school provide a Food Service for Pupils? ____ yes X no
   (Open lunch program - bag lunch)

10. Financial Support

$955.25 Amount of Local and General State Aid per child

$100.00 Title 1, ESEA - average dollor amount spent on each Title 1 participant - 23 Number of pupils receiving Title 1 services Summer (1972)

$261.02 Sec. 3 State Aid - average dollar amount spent of each Sec. 3 participant - 165 Number of pupils receiving Sec. 3 services

-0- Sec. 12 State Aid - average dollar amount spent on each Sec. 12 participant

$ 3.56 Amount of other categorical aid per child, such as Title III, ESEA; Title VI; Title VII; NDEA III, etc.

-0- Amount of Federal Impacted Areas School Aid (PL 89-874)

School Statistics

The following is a brief statement regarding types of children -- black, ethnic make-up and type of community served by the school.

Ninety-seven percent of the children are Caucasian, with a lower and middle class background. There is a parent committee involved in understanding and planning curriculum.

The attendance area is new. The very concept of a neighborhood is yet to develop. The new families have moved mostly from Detriot (49), Southern States (7), Lincoln-Jefferson W.W.C.S. (26). Most of the children attended schools in the surrounding W.W.C.S. attendance areas. Some problem exists in small children's gangs, usually older Junior High School students. Families of different value systems and attitudes are living side by side. Federal low-cost housing (235) is dispersed throughout the new development. We have identified 20% of our students (31 families) that are either ADC, welfare or one parent homes. Conflict sometimes occurs due to conflicting values, different life style, and different ideas about how children should be raised. Frustration occurs frequently regarding construction in the area, home repair, etc. It will take a few years to understand one another, understanding divergent life styles and needs.

Parents have identified the need for more recreational opportunities for students after school and on Saturdays.

Some parents are still fearful of the "new" program at P. D. Graham. The Voluntary Aide Program, Conference Model for reporting progress, the Open Parent Visitation policy and small orientation group meetings are helping to overcome the unknown and fear regarding the program.

Due to enrollment problems and an attitude that parents should be allowed as many "alternatives" as is manageable, we gave our parents an option to choose to send their children to a more traditional school. Of 462 families, representing 783 children, 19 families representing 27 children, elected the option for their children to attend a more traditional building. This is in percentages 96% of the families wanted to remain, representing slightly more than 96½% of the children.

ATTACHMENT II

Student Profiles:
Matrix Reports

1. Each unit reported on approximately thirty (30) students:

   Primary Unit - Approximately 30 third year students (2nd grade)
   Intermediate Unit - Approximately 30 fifth year students (4th grade)

2. The unit's matrix reports are divided first by content: mathematics and reading.

3. The "grade level" matrix reports are first in order followed by the above "grade level" and concluding with the "below grade level" matrix reports.

4. Attachment number III includes the objectives which are coded to the matrix form, as example:

   Primer - Reading - 1st grade level
   L-CS means: Students will learn to recognize small and capital letters.

5. The totals for number and percent of students mastering the objective is listed on the top sheet for each grade level.

ATTACHMENT II
Primary unit: Exhibit #1
Matrix in Mathematics Skills
Matrix in Communication Skills

PRIMARY A LEVEL OF OBJECTIVES - 2nd GRADE LEVEL (Lake Unit)

SUBJECT AREA MATH SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		COMPUTATIONAL						CONCEPTS						
			A_1	A_2	AM SM	A_3	S_1	S_2	CO NR	WN	GMS	C-O OH	MO	PV NS	PA PS
	11/71 T-M, GE	5/72 T-M, GE	1	2	3	4	5	6	7	8	9	10	11	12	13
1	2.0	3.0	5/72		5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72			5/72
2	1.5	2.0	11/71			5/72	11/71		11/71	11/71	11/71		11/71		
3	1.8	2.7	11/71	5/72	5/72	11/71	11/71	5/72	11/71	11/71		5/72	11/71		5/72
4	1.7	1.8	11/71			11/71	11/71		11/71	11/71			11/71		
5		1.5	5/72				5/72		5/72	5/72					
6	2.5	2.1	11/71	5/72		11/71			11/71	11/71	11/71	11/71			11/71
7	2.1	3.1	11/71	5/72	5/72	11/71	11/71	5/72	11/71	11/71	11/71	11/71	11/71		5/72
8		3.1	5/72		5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72		5/72
9	1.9	1.8	11/71			11/71	5/72		11/71	5/72		11/71	11/71		
10	3.1	1.6	5/72			5/72	5/72		5/72	5/72					
11	2.0	3.0	11/71	5/72	11/71	11/71	11/71	5/72	11/71	11/71	5/72	11/71	5/72		5/72
12	2.1	2.5	11/71	11/71		11/71	11/71			11/71	11/71	5/72	11/71		5/72
13	1.5	2.5	11/71	5/72	5/72	11/71	11/71		11/71	5/72	11/71	5/72			5/72
14	3.5	3.5	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71		11/71
15		2.5	5/72	5/72	5/72		5/72		5/72	11/71		11/71	5/72		11/71
16	2.3	3.8	11/71	11/71	5/72	11/71	11/71	5/72	11/71	11/71	11/71	11/71	5/72		11/71
Number Achieving Objectives			2[illegible]	17	15	25	26	15	27	28	16	23	19	4	21
Percent Achieving Objectives			100	61	54	90	86	54	96	100	57	82	71	14	75

Some pupils cannot be shown on the above profile — they are working above or below expectations. Individual profiles are attached for each pupil in this group.

T-M - Total Math
GE - Grade Equivalent

* Numbered objectives are described in Attachment III

PRIMARY A LEVEL OF OBJECTIVES - 2nd GRADE LEVEL (Lake Unit)

SUBJECT AREA MATH SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		COMPUTATIONAL						CONCEPTS						
			A_1	A_2	AM SM	A_3	S_1	S_2	CO NR	WN	GMS	C-O OH	MO	PV NS	PA PS
	11/71	5/72	1	2	3	4	5	6	7	8	9	10	11	12	13
	Cp C	Cp C													
17		2.3	5/72	5/72	5/72	5/72		5/72	5/72	5/72	5/72	5/72			5/72
18	1.6	2.4	11/71	5/72		5/72	11/71	5/72	11/71	5/72		11/71	11/71		5/72
19	1.7	2.5	11/71	5/72		11/71	11/71	5/72	11/71	5/72		11/71	11/71	5/72	5/72
20	1.9	2.5	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72			5/72		11/71
21	2.1	3.1	11/71	5/72			11/71	5/72	11/71	11/71		5/72	11/71	5/72	5/72
22		2.6	5/72		5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72		5/72
23		2.3	5/72		5/72	5/72	5/72		5/72	5/72		5/72			5/72
24	1.7	2.5	11/71	5/72		11/71	11/71		11/71	11/71	11/71	11/71			5/72
25		3.3	5/72		5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72
26	1.9	3.1	11/71	11/71	5/72	11/71	11/71	5/72	11/71	11/71	5/72	11/71	11/71		
27		1.8	5/72			5/72	5/72		5/72	5/72		5/72	5/72		5/72
28	1.7	2.5	11/71	5/72	5/72	5/72	11/71		11/71	11/71	11/71	5/72		5/72	
Number Achieving Objectives															
Percent Achieving Objectives															

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

* Numbered objectives are described in Attachment III

PRIMARY B. LEVEL OF OBJECTIVES - 3rd GRADE LEVEL

SUBJECT AREA MATH SKILLS

(Lake Unit)

Pupil Number	Most Recent Norm Referenced Test Score		COMPUTATION A1-3 AD AM	S1-3 SM MD	M FR	CONCEPTS G-MS MO	C FC	NR CO	NU CS AR	PV NS	I LP
	11/71	5/72	1	2	3	4	5	6	7	8	9
	GE T-M	GE T-M									
3	1.8	2.7	6/72	6/72							
7	2.1	3.1									
8		3.1				6/72					
11	2.0	3.0	6/72	6/72	6/72	6/72					
14	3.5	3.5				6/72	6/72				
16	2.3	3.8	6/72	6/72		6/72	6/72				
19	1.7	2.5									
22		2.6									
25		3.3									
26	1.9	3.1									
28	1.7	2.5									
Number Achieving Objectives			3	3	1	4	2	0	0	0	0
Percent Achieving Objectives			27	27	9	36	18	0	0	0	0

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

T-M - Total Math
GE - Grade Equivalent

* Numbered objectives are described in Attachment III

PRIMER LEVEL OF OBJECTIVES - 1st GRADE LEVEL (Lake Unit)

SUBJECT AREA MATH SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		COMPUTATION		CONCEPTS									
			AD	SB	CN Q	CN G	CN S	CN N	CN T	CN M				
	11/71	5/72	1	2	3	4	5	6	7	8	9	10		
	T-M GE	T-M GE												
2	1.5	2.0	6/72	6/72	6/72									
4	1.7	1.8	6/72	6/72	6/72									
5		1.5	6/72	6/72	6/72									
9	1.9	1.8	6/72	6/72	6/72	6/72	6/72		6/72	6/72				
19	3.1	1.6			6/72	6/72			6/72	6/72				
27		1.8			6/72	6/72								
Number Achieving Objectives			4	4	6	3	1	0	2	2	0	0		
Percent Achieving Objectives			67	67	100	50	17	0	33	33	0	0		

Some pupils cannot be shown on the above profile — they are working above or below expectations. Individual profiles are attached for each pupil in this group.

T-M - Total Math
GE - Grade Equivalent

* Numbered objectives are described in Attachment III

PRE-PRIMER LEVEL OF OBJECTIVES - KINDERGARTEN LEVEL
(Lake Unit)

SUBJECT AREA MATH SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		READINESS							
			Q	FD	S	NC	M	G	PS	FC
	11/71	5/72	1	2	3	4	5	6	7	8
	Total	Math						6/72		
2	1.5	2.0	6/72	6/72				6/72		
4	1.7	1.8	6/72	6/72				6/72		
5		1.5	6/72	6/72				6/72		
10	3.1	1.6	6/72	6/72			6/72	6/72		
27		1.8	6/72	6/72						
Number Achieving Objectives			5	5	0	0	1	4	0	0
Percent Achieving Objectives			100	100	0	0	20	80	0	0

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

* Numbered objectives are described in Attachment III

PRIMARY A LEVEL OF OBJECTIVES - 2nd GRADE LEVEL (Lake Unit)

SUBJECT AREA COMM. SKILLS

Pupil Number	Most Recent Norm Referenced Test Score				READING			WORD ANALYSIS						
					S	R	F	CW	R	ICIF	USF	DB	PS	SC-FB
	11/71		5/72		1	2	3	4	5	6	7	8	9	10
	R	WA	R	WA										
1	2.2	2.0	3.1	2.2	11/71	5/72	5/72	11/71	11/71	11/71	11/71	11/71	11/71	
2	1.6	1.7	1.8	2.1				5/72	5/72	11/71		5/72	11/71	11/71
3	1.6	1.2	1.9	1.8					5/72	11/71	5/72	5/72		
4	1.4	1.4	1.6	1.9						11/71				
5			1.8	1.9					5/72	6/72		5/72	5/72	
6	2.3	1.8	1.9	2.1	6/72			5/72	11/71	11/71		11/71	11/71	
7	1.5	1.4	1.9	1.4	6/72					6/72		5/72		
8	1.4	1.3	1.6	1.5						6/72				
9	1.4	1.3	1.8	2.0	5/72			5/72		5/72		11/71		5/72
10	2.1	1.7	2.0	1.8	11/71			5/72	11/71	11/71			5/72	
11	2.1	1.8	3.1	3.4	5/72	5/72	5/72	5/72	11/71	11/71	11/71	5/72	11/71	5/72
12	1.4	1.7	2.1	2.3	6/72				5/72	11/71	5/72		5/72	11/71
13	1.7	1.7	2.9	3.0	5/72	5/72	5/72	5/72	5/72	11/71	5/72	5/72	11/71	5/72
14	3.4	3.0	2.9	2.2	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71
15	1.3	1.4	1.8	1.3						11/71				
Number Achieving Objectives					18	10	10	18	22	28	18	21	20	14
Percent Achieving Objectives					64	36	36	64	70	100	67	75	71	50

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading
WA - Word Analysis

* Numbered objectives are described in Attachment III

PRIMARY B LEVEL OF OBJECTIVES - 3rd GRADE LEVEL SUBJECT AREA COMM. SKILLS

READING WORD ANALYSIS (Lake Unit)

Pupil Number	Most Recent Norm Referenced Test Score		S	ST	IC CW R	IC FC SC	MV	DB EB	RV DV SE	RV PR SF
	11/71	5/72	1	2	3	4	5	6	7	8
	R WA	R WA								
1	2.2	3.1	6/72	6/72	6/72	6/72	6/72		6/72	
11	2.1	3.1	6/72		6/72	6/72				
13	1.7	2.9	6/72				6/72	6/72	6/72	
14	3.4	2.9	6/72		6/72	6/72				6/72
16	2.4	2.9	6/72	6/72	6/72					
17		2.7	6/72	6/72			6/72			
18	1.6	1.8	6/72							
20	2.0	2.1	6/72							
21	2.0	3.1	6/72							
22		3.1	6/72	6/72	6/72		6/72			
23	2.0	3.4	6/72							
28	2.1	2.5	6/72	6/72	6/72					
Number Achieving Objectives			12	5	6	3	4	1	2	1
Percent Achieving Objectives			100	42	50	25	33	8	17	8

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - READING
WA - WORD ANALYSIS

* Numbered objectives are described in Attachment III

PRIMARY A LEVEL OF OBJECTIVES - 2nd GRADE LEVEL (Lake Unit)

SUBJECT AREA COMM. SKILLS

Pupil Number	Most Recent Norm Referenced Test Score				READING			WORD ANALYSIS						
					S	R	P	CW	R	ICIE	USE	DB	PS	SC-FB
	11/71		5/72		1	2	3	4	5	6	7	8	9	10
	R	WA	R	WA										
16	2.4	1.9	2.9	2.5	11/71	5/72	11/71	5/72	11/71	11/71	5/72	11/71	11/71	11/71
17			2.7	3.0	5/72		5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72
18	1.8	1.8	2.2	2.5	5/72	11/71	5/72	5/72	11/71	11/71	5/72	11/71	11/71	
19	1.6	1.8	1.8	2.3				5/72	11/71	11/71	5/72	11/71	11/71	5/72
20	2.0	1.7	2.1	2.3	5/72			5/72	11/71	11/71	5/72	5/72	5/72	11/71
21	2.0	2.0	3.1	3.0	11/72	5/72	5/72	11/71	11/71	11/71	5/72	11/71	11/71	5/72
22			3.1	3.4	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72	5/72
23	2.0	2.1	3.4	3.4	11/71	5/72	5/72	5/72	11/71	11/71	11/71	11/71	11/71	5/72
24	1.8	1.6	1.8	1.6					11/71	11/71				
25			2.1	2.7	5/72			5/72	5/72	5/72	5/72	5/72	5/72	
26	1.6	1.7	1.8	2.1						11/71	5/72	11/71	5/72	
27	1.8	1.6	1.7	1.8					5/72	11/71	5/72			
28	2.1	1.7	2.5	2.7	11/71	5/72		5/72	11/71	11/71	5/72	5/72	11/71	5/72
Number Achieving Objectives														
Percent Achieving Objectives														

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading
WA - Word Analysis

* Numbered objectives are described in Attachment III

PRIMER LEVEL OF OBJECTIVES - 1st GRADE LEVEL (Lake Unit) SUBJECT AREA COMM. SKILLS

READING LISTENING SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		L-CS	SW	SS	P-BE	L-BE	WW
	11/71	5/72	1	2	3	4	5	6
	$\frac{R}{LS}$	$\frac{R}{LS}$						
3	1.6	1.9	6/72	6/72		6/72	6/72	6/72
4	1.4	1.6	6/72			6/72	6/72	
5		1.8	6/72	6/72		6/72	6/72	6/72
7	1.5	1.9	6/72	6/72				6/72
8	1.4	1.6	6/72	6/72	6/72	6/72	6/72	6/72
9	1.4	1.8	6/72	6/72		6/72	6/72	6/72
10	2.1	2.0	6/72	6/72		6/72	6/72	6/72
15	1.3	1.8	6/72			6/72	6/72	
24	1.8	1.8	6/72	6/72	6/72	6/72	6/72	6/72
26	1.6	1.8	6/72	6/72	6/72	6/72	6/72	6/72
27	1.8	1.7	6/72			6/72	6/72	
Number Achieving Objectives			11	8	3	10	10	8
Percent Achieving Objectives			100	73	27	91	91	73

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading
LS - Listening Skills

* Numbered objectives are described in Attachment III

PRE-PRIMER LEVEL OF OBJECTIVES - KINDERGARTEN LEVEL
(Lake Unit)

SUBJECT AREA COMM. SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		READINESS					
			WH	L	A	M	C	
	11/71	5/72	1	2	3	4	5	
	R	R						
4	1.4	1.6	6/72	6/72	6/72	6/72		
7	1.5	1.9	6/72	6/72	6/72	6/72	6/72	
15	1.3	1.8	6/72	6/72	6/72	6/72	6/72	
27	1.8	1.7	6/72	6/72	6/72	6/72	6/72	
Number Achieving Objectives			4	4	4	4	3	
Percent Achieving Objectives			100	100	100	100	75	

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Readiness

* Numbered objectives are described in Attachment III

ELEMENTARY LEVEL OF OBJECTIVES - 4th GRADE LEVEL (Stadium Unit) SUBJECT AREA MATH SKILLS

COMPUTATIONAL CONCEPTS

Pupil Number	Most Recent Norm Referenced Test Score		AN AR 1	SN 2	SR 3	FR FD 4	MI MF 5	DN DR 6	C,CO AR NS 7	MS MO 8	PV 9	E,NU D RN 10	LP 11	G, NL 12	FC 13
	11/71	5/72													
	CpC	CpC	5/72		5/72									5/72	5/72
1	CpC 2.4	Cp 3.7	11/71	11/71	5/72	5/72		5/72	11/71	5/72				5/72	5/72
2	3.8	5.2	11/71	11/71	11/71	5/72	11/71	11/71	11/71	5/72			11/71	5/72	5/72
3	4.9	6.8	11/71	11/71											
4	1.8	1.9	11/71	11/71	5/72	5/72	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71	11/71
5	6.2	6.9	11/71	11/71	11/71		5/72	5/72	5/72	11/71	5/72		11/71	5/72	11/71
6	3.9	4.6	5/72	11/71	11/71				5/72	5/72				5/72	5/72
7	3.3	4.6	11/71	11/71	11/71		5/72		5/72			5/72	5/72	5/72	5/72
8	4.4	5.2	5/72	11/71											
9	1.9	2.0	11/71	11/71	5/72				11/71	5/72	11/71			5/72	11/71
10	4.4	4.6	11/71	11/71	11/71	5/72	11/71	5/72	11/71	5/72	11/71			5/72	
11	4.3	5.2	11/71	11/71	11/71										
12	3.2														
13	2.5		5/72	11/71											
14	1.9	2.6	11/71	11/71	11/71				11/71	11/71		11/71		5/72	
15	4.4	4.7	11/71	11/71	11/71		11/71		5/72	5/72			5/72	5/72	11/71
Number Achieving Objectives			30	30	21	6	11	9	18	17	9	3	7	20	16
Percent Achieving Objectives			85	85	60	17	31	26	51	49	26	9	20	57	46

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

CP - Computational
C - Concepts

* Numbered objectives are described in Attachment III

ELEMENTARY LEVEL OF OBJECTIVES - 4th GRADE LEVEL (Stadium Unit) SUBJECT AREA MATH SKILLS

COMPUTATIONAL CONCEPTS

Pupil Number	Most Recent Norm Referenced Test Score		AN AP 1	SN 2	SR 3	FR FD 4	MI MF 5	DN DR 6	C,CO AP NS 7	MS MO 8	PV 9	E,NU D RN 10	LP 11	G, NL 12	FC 13
	11/71	5/72													
17	CpC 2.3	CpC 1.8													
18	2.5	2.8	5/72	11/71											
19	3.3		11/71	11/71	11/71										
20	3.2	3.2	11/71	11/71											5/72
21	3.0	4.2	5/72	11/71						5/72				5/72	
22	4.4		11/71		11/71				11/71						11/71
23		1.4		5/72											
24	3.6	3.7	5/72	11/71	11/71		11/71							5/72	11/71
25	3.3	3.7	11/71	11/71	11/71					5/72				5/72	
26	5.4	6.7	11/71	11/71	11/71	11/71	11/71	5/72	11/71	11/71	11/71		5/72	11/71	5/72
27	4.7	5.9	11/71	11/71	11/71	5/72	5/72	5/72	11/71	5/72	5/72		5/72	11/71	5/72
28	1.9	3.1	5/72	5/71											
29	3.3	3.5	5/72	11/71					5/72					11/71	5/72
30	3.7	4.7	5/72	11/71	5/72			5/72	5/72	5/72	11/71			11/71	
31	3.3	3.6	11/71							5/72					
32	3.1	3.3		5/72											
Number Achieving Objectives															
Percent Achieving Objectives															

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

CP-Computational
C-Concepts

* Numbered objectives are described in Attachment III

ELEMENTARY LEVEL OF OBJECTIVES - 4th GRADE LEVEL (Stadium Unit) SUBJECT AREA MATH SKILLS

COMPUTATIONAL CONCEPTS

Pupil Number	Most Recent Norm Referenced Test Score		AN AR 1	SN 2	SR 3	FR FD 4	MI MF 5	DN DR 6	C,CO AR NS 7	MS MO 8	PV 9	E,NU D RN 10	LP 11	G, NL 12	FC 13
	11/71	5/72													
	CpC	CpC													
33	1.2	2.6		5/72					5/72						
34	3.3	5.4	11/71	5/72	5/72		5/72	5/72	5/72	5/72	5/72			5/72	11/71
35	3.7	4.9	5/72	11/71	11/71		5/72		5/72	5/72	5/72			5/72	
Number Achieving Objectives			2	3	2	0	2	1	3	2	2	0	0	2	1
Percent Achieving Objectives			66	100	66	0	66	33	100	66	66	0	0	66	33

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

* Numbered objectives are described in Attachment III

CP - Computational
C - Concepts

INTERMEDIATE LEVEL OF OBJECTIVES - 5th and 6th GRADE LEVEL SUBJECT AREA MATH SKILLS

(Stadium Unit)

Pupil Number	Most Recent Norm Referenced Test Score		COMPUTATIONAL							CONCEPTS						
			NA	NS	NM	ND AV	FA FS	FM FD FR	D PR RD	FE R	AR RN NS S	NB PV	LP	G NL	ER MS	PP I
	11/71	5/72	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Total	Math	6/72													
3	4.9	6.8	6/72	6/72	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72		6/72	
5	6.2	6.9	6/72	6/72	6/72	6/72	6/72					6/72			6/72	
6	3.9	4.6	6/72	6/72								6/72				
26	5.4	6.7	6/72	6/72	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72		6/72	
27	4.7	5.9	6/72	6/72	6/72							6/72			6/72	
Number Achieving Objectives			5	5	4	3	3	2	2	2	0	5	2	0	4	0
Percent Achieving Objectives			100	100	80	60	60	40	40	40	0	60	40	0	80	0

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

* Numbered objectives are described in Attachment III

PRIMARY B LEVEL OF OBJECTIVES - 3rd GRADE LEVEL (Stadium Unit)

SUBJECT AREA MATH SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		COMPUTATION A1-3 AD AM	S1-3 SM MS	M FR	CONCEPTS G-MS MO	C FC	NR CO	NU CS AR	PV NS.	I LP
	11/71	5/72	1	2	3	4	5	6	7	8	9
1	CpC 2.4	CpC 3.7	6/72	6/72			6/72	4/72		6/72	
4	1.8	1.9									
7	3.3	4.6	6/72	6/72			6/72	4/72		6/72	
9	1.9	2.0									
12	3.2		6/72	6/72				4/72			
13	2.5										
14	1.9	2.6									
15	4.4	4.7	6/72	6/72			6/72	4/72	6/72	6/72	
17	2.8	1.8									
18	2.5	2.8									
19	3.3		6/72	6/72			6/72	4/72		6/72	
20	3.2	3.2	6/72	6/72			6/72	4/72		6/72	
21	3.0	4.2	6/72	6/72			6/72	4/72		6/72	
22	4.4		6/72	6/72			6/72	4/72		6/72	
23		1.4									
24	3.6	3.7	6/72	6/72			6/72	4/72		6/72	
Number Achieving Objectives			14	14	0	0	12	14	1	12	0
Percent Achieving Objectives			64	64	0	0	55	64	4	55	0

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

CP - Computation
C - Concepts

* Numbered objectives are described in Attachment III

PRIMARY B LEVEL OF OBJECTIVES - 3rd GRADE LEVEL SUBJECT AREA MATH SKILLS

COMPUTATION CONCEPTS (Stadium Unit)

Pupil Number	Most Recent Norm Referenced Test Score		A1-3 AD AM 1	S1-3 SM MS 2	M FR 3	G-MS MO 4	C FC 5	NR CO 6	NU CS AR 7	PV NS. 8	I LP 9
	11/71	5/72									
25	CpC 3.3	CpC 3.7	6/72	6/72			6/72	4/72		6/72	
28	1.9	3.1	6/72	6/72			6/72	4/72		6/72	
29	3.3	3.5	6/72	6/72			6/72	4/72		6/72	
31	3.3	3.6	6/72	6/72			6/72	4/72		6/72	
32	3.1	3.3	6/72	6/72				4/72			
33	1.2	2.6									
Number Achieving Objectives			5	5	0	0	4	5	0	4	0
Percent Achieving Objectives			83	83	0	0	66	83	0	66	0

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

CP - Computation
C - Concepts

* Numbered objectives are described in Attachment III

PRIMARY A LEVEL OF OBJECTIVES - (Stadium Unit) SUBJECT AREA MATH SKILLS

COMPUTATION CONCEPTS

Pupil Number	Most Recent Norm Referenced Test Score		AM																					
			A_1	A_2	SM	A_3	S_1	S_2			CO	G	C-O		PV		PA							
	11/71	5/72	1	2	3	4	5	6			NR	MS	OH	MO	NS		WN		PS					
	CpC	CpC									7	8	9	10	11		12		13					
4	1.8	1.9	6/72	6/72	6/72	6/72	6/72	6/72			6/72		6/72	6/72			6/72		6/72					
9	1.9	2.0	6/72	6/72	6/72	6/72	6/72	6/72			6/72		6/72				6/72		6/72					
12	3.2		6/72	6/72	6/72	6/72	6/72	6/72			6/72		6/72	6/72	6/72		6/72		6/72					
13	2.5		6/72		6/72	6/72	6/72				6/72		6/72											
14	1.9	2.6	6/72	6/72	6/72	6/72	6/72	6/72			6/72		6/72	6/72	6/72		6/72		6/72					
17	2.8	1.8	6/72	6/72	6/72	6/72	6/72				6/72		6/72				6/72		6/72					
18	2.5	2.8	6/72	6/72	6/72	6/72	6/72	6/72			6/72	6/72	6/72	6/72	6/72		6/72		6/72					
23		1.4	6/72	6/72	6/72	6/72	6/72						6/72						6/72					
32	3.1	3.3	6/72	6/72	6/72	6/72	6/72	6/72			6/72		6/72	6/72	6/72		6/72		6/72					
33	1.2	2.6	6/72	6/72	6/72	6/72	6/72				6/72		6/72	6/72			6/72		6/72					
Number Achieving Objectives			10	9	10	10	10	6			9	1	10	6	4		8		9					
Percent Achieving Objectives			100	90	100	100	100	60			90	10	100	60	40		80		90					

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

CP - Computation
C - Concepts

* Numbered objectives are described in Attachment III

PRIMER LEVEL OF OBJECTIVES - 1st GRADE LEVEL (Stadium Unit)

SUBJECT AREA MATH SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		COMPUTATION		CONCEPTS									
			AD	SB	CN Q	CN G	CN S	CN N	CN T	CN M				
	11/71	5/72	1	2	3	4	5	6	7	8	9	10		
	CpC	CpC												
13	2.5		6/72	6/72	6/72	6/72	6/72	6/72						
23		1.4	6/72	6/72	6/72	6/72	6/72	6/72						
Number Achieving Objectives			2	2	2	2	2	2	0	0	0	0		
Percent Achieving Objectives			100	100	100	100	100	100	0	0	0	0		

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

CP - Computation
C - Concepts

* Numbered objectives are described in Attachment III

ELEMENTARY LEVEL OF OBJECTIVES - 4th GRADE LEVEL (Stadium Unit) SUBJECT AREA COMM. SKILLS

READING LANGUAGE SKILLS

Pupil Number	Most Recent Norm Referenced Test Score				MT	IN	LT	WK	T	AS	N	P CM QS AP	CP	UV. UP UA	NE
	11/71		5/72		1	2	3	4	5	6	7	8	9	10	11
	R	LS	R	LS											
1	3.2	3.9	4.1	2.9						11/71	11/71				11/71
2	3.8	4.1	6.9	5.1		5/72	5/72	5/72	11/71	11/71	5/72				11/71
3	3.9	5.6	6.0	5.4	11/71		11/71	5/72	5/72	11/71		5/72	5/72	11/71	11/71
4		1.2	1.3	2.5					5/72	5/72					
5	9.9	5.0	9.9	8.0	11/71	11/71	11/71	11/71	11/71	11/71	5/72	5/72	5/72	5/72	11/71
6	3.7	4.0	5.0	5.4			5/72			11/71	5/72			5/72	11/71
7	3 1	5.1	3.9	4.7			5/72		11/71	11/71	11/71		5/72		11/71
8	3.7	5.1	5.5	5.3	11/71		5/72	5/72	5/72	11/71	5/72	11/71	11/71	11/71	
9	2.6	2.7	5.2	4.1	5/72				5/72	11/71					
10	3.3	3.5	4.1	4.3			5/72	5/72		11/71					5/72
11	3.6	5.6	4.6	5.9			5/72			11/71	11/71	5/72	5/72	11/71	11/71
12	3.2	3.3	3.8												11/71
13	2.5	2.6													
14	1.0		1.9	2.3		5/72									
15	5.3	4.0	6.4	5.1	11/71	11/71	11/71		11/71	11/71				5/72	11/71
16	6.2	4.5	5.7	5.9	11/71		11/71		11/71	5/72	5/72		5/72		11/71
Number Achieving Objectives					11	7	18	10	17	27	18	5	6	8	18
Percent Achieving Objectives					31	20	51	28	49	77	51	14	17	25	51

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading
LG - Language Skills

* Numbered objectives are described in Attachment III

ELEMENTARY LEVEL OF OBJECTIVES - 4th GRADE LEVEL SUBJECT AREA COMM. SKILLS

Reading (Stadium Unit) LANGUAGE SKILLS

Pupil Number	Most Recent Norm Referenced Test Score				MT	IN	LT	WK	T	AS	N	P CM QS AP	CP	UV UP UA	NB
	11/71		5/72		1	2	3	4	5	6	7	8	9	10	11
	R	LS	R	LS											
17	1.3	3.0	2.0	1.8						11/71					
18	2.1	1.8	2.7	3.3											
19	2.9	3.7								11/71					
20	2.8	2.9	3.0	2.9					5/72	11/71					
21	4.4	2.9	4.3	2.5			11/71		11/71	11/71	5/72				
22	3.3	4.1	4.1		5/72		5/72			11/71					11/71
23		1.0	2.6	1.0											
24	3.3	2.4	4.9	3.1			5/72		11/71	11/71	5/72				
25	4.4	4.5	6.2	4.7		5/72	5/72	5/72		5/72	11/71			5/72	11/71
26	4.8	5.6	5.0	5.1	1/72		5/72	6/72	5/72	11/71		6/72			11/71
27	5.2	4.1	6.0	5.4	5/72	5/72	11/71	5/72	11/71	11/71	11/71				5/72
28	2.8	3.0	4.4	3.7	5/72			5/72	11/71		5/72				
29	2.6	2.4	3.3	3.2					5/72						
30	4.3	5.3	7.6	4.8		5/72	5/72	5/72	5/72	11/71	11/71			5/72	11/71
31	1.9	2.9	2.5	3.6						11/71	11/71				
32										5/72	5/72				5/72
Number Achieving Objectives					4	3	7	5	8	12	8	1	0	2	6
Percent Achieving Objectives					25	18	43	31	50	75	50	7	0	12	38

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading

LS - Language Skills

* Numbered objectives are described in Attachment III

ELEMENTARY LEVEL OF OBJECTIVES - 4th GRADE LEVEL (Stadium Unit) SUBJECT AREA COMM. SKILLS

READING LANGUAGE SKILLS

Pupil Number	Most Recent Norm Referenced Test Score				MT		IN		LT		WK		T		AS		N		P CM OS AP		CP		UV UP UA		NE	
	11/71		5/72		1		2		3		4		5		6		7		8		9		10		11	
	R	LS	R	LS																						
33	1.2	1.8	2.0	2.3											5/72											
34	3.5	2.1	3.6	4.7											11/71		11/71								5/72	
35	3.3	1.6	3.9	3.4	11/71				5/72						5/72		5/72									
Number Achieving Objectives					1		0		1		0		0		3		2		0		0		0		1	
Percent Achieving Objectives					33		0		33		0		0		100		66		0		0		0		33	

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading
LS - Language Skills

* Numbered objectives are described in Attachment III

ATTACHMENT II
Intermediate Unit: Exhibit #2
Matrix in Mathematics Skills
Matrix in Communication Skills

INTERMEDIATE LEVEL OF OBJECTIVES - 5th and 6th GRADE LEVEL SUBJECT AREA COMM. SKILLS

(Stadium Unit)

Pupil Number	Most Recent Norm Referenced Test Score		Reading				WORD KNOWLEDGE				SPELLING SKILLS				PUNCTUATION	
			MT	IN	LT		GI	SS	SC	AT	DC	WC	MV MX VC	OC	P QS CL EX	CM
	11/71	5/72	1	2	3	4	5	6	7	8	9	10	11	12	13	14
3	3.9-5.6	6.0-5.4	6/72	6/72	6/72		6/72	6/72	6/72	6/72		6/72	6/72	6/72	6/72	
5	9.9-5.1	9.9-8.0	6/72	6/72	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	6/72	6/72	6/72
Number Achieving Objectives			2	2	2	1	2	2	2	2	0	2	2	2	2	1
Percent Achieving Objectives			100	100	100	50	100	100	100	100	0	100	100	100	100	50

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

* Numbered objectives are described in Attachment III

* Numbered objectives are described in Attachment III

INTERMEDIATE LEVEL OF OBJECTIVES - 5th and 6th GRADE LEVEL SUBJECT AREA COMM. SKILLS

PUNCTUATION SPEECH (Stadium Unit) STUDY SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		AP QT	UA AV	NN UP	EP	UV	PX UN UA	NQ	SI	SD	GW.	TC	EN
	11/71	5/72	15	16	17	18	19	20	21	22	23	24	25	26	27
3					6/72	6/72	6/72				6/72	6/72	6/72	6/72	6/72
5				6/72	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	6/72	6/72
Number Achieving Objectives			0	1	2	2	2	1	1	0	2	2	2	2	2
Percent Achieving Objectives			0	50	100	100	100	50	50	0	100	100	100	100	100

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

* Numbered objectives are described in Attachment III

PRIMER . **LEVEL OF OBJECTIVES** - 1st GRADE LEVEL (Stadium Unit) **SUBJECT AREA** COMMUNICATIC SKILLS

READING LISTENING SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		L CS	L SW	L SS	P BE	L BE	L WW
	11/71	5/72	1	2	3	4	5	6
1	R-LS -1.2	R-LS 1.3-2.5	6/72	6/72	6/72	6/72	6/72	6/72
13	2.5-2.6			6/72	6/72			6/72
14	1.0-	1.9-2.3	6/72	6/72	6/72	6/72	6/72	6/72
17	1.3-3.0	2.0-1.8	6/72	6/72	6/72	6/72	6/72	6/72
20	2.8-2.9	3.0-2.9	6/72	6/72	6/72	6/72	6/72	6/72
23	-1.0	2.6-1.0		6/72	6/72			6/72
33	1.2-1.8	2.0-2.3	6/72	6/72	6/72	6/72	6/72	6/72
Number Achieving Objectives			5	7	7	5	5	7
Percent Achieving Objectives			71	100	100	71	71	100

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

L - LISTENING SKILLS
R - READING

* Numbered objectives are described in Attachment III

PP — LEVEL OF OBJECTIVES - 3rd GRADE LEVEL — SUBJECT AREA COMMUNICATION SKILLS

RE[illegible]NG — WORD ANALYSIS (Stadium Unit)

Pupil Number	Most Recent Norm Referenced Test Score		S	ST	CW R	IC FC SC	MV	DB FR	RV DV SE	PR SF
	11/71	5/72	1	2	3	4	5	6	7	8
1	R, WA 3.2-3.9	R, WA 4.1-2.9	6/72	6/72	6/72	6/72				
4	1.2	1.3-2.5	6/72	6/72						
6	3.7-4.0	5.0-5.4	6/72	6/72	6/72	6/72	6/72			
7	3.1-5.1	3.9-4.7	6/72	6/72	6/72	6/72		6/72		6/72
9	2.6-2.7	5.2-4.1	6/72	6/72	6/72	6/72				
10	3.3-3.5	4.1-4.3	6/72	6/72		6/72				
12	3.2-3.3	3.8-	6/72		6/72	6/72				
13	2.5-2.6	-								
14	1.0	1.9-2.3								
17	1.3-3.0	2.0-1.8								
18	2.1-1.8	2.7-3.3								
19	2.9-3.7		6/72	6/72	6/72	6/72				
20	2.8-2.9	3.0-2.9	6/72	6/72						
21	4.4-2.9	4.3-2.5	6/72	6/72	6/72	6/72				
22	3.3-4.1	4.1-	6/72	6/72	6/72	6/72				
23	-1.0	2.6-1.0								
Number Achieving Objectives			16	14	13	13	1	1	0	1
Percent Achieving Objectives			64	56	52	52	04	04	00	04

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - READING
WA - WORD ANALYSIS

* Numbered objectives are described in Attachment III

PRIMARY B. LEVEL OF OBJECTIVES - 3rd GRADE LEVEL (Stadium Unit)

SUBJECT AREA COMMUNICATION SKILLS

READING WORD ANALYSIS

Pupil Number	Most Recent Norm Referenced Test Score		S	ST	CW R	IC FC SC	MV	DB EB	RV DV SE	PR SF
	11/71	5/72	1	2	3	4	5	6	7	8
	R WA	R WA								
24	3.3-2.4	4.9-3.1	6/72	6/72	6/72	6/72				
28	2.8-3.0	4.4-3.7	6/72	6/72	6/72	6/72				
29	2.6-2.4	3.3-3.2	6/72		6/72					
31	2.5-2.5	2.4-3.5								
32	1.9-2.9	2.9-3.6								
33	1.2-1.8	2.0-2.3								
34	3.5-2.1	3.6-4.7	6/72	6/72	6/72	6/72				
35	3.3-1.6	3.9-3.4	6/72	6/72	6/72	6/72				
Number Achieving Objectives			5	4	5	4				
Percent Achieving Objectives			55	44	55	44				

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading
WA - Word Analysis.

* Numbered objectives are described in Attachment III.

PRIMARY A READING — LEVEL OF OBJECTIVES - 2nd GRADE LEVEL WORD ANALYSIS (Stadium Unit) — SUBJECT AREA COMMUNICATIC SKILLS

Pupil Number	Most Recent Norm Referenced Test Score		S	R	P'	CW	R	CIF	VSE	DB	PS	SC FB
	11/71	5/72	1	2	3	4	5	6	7	8	9	10
1	RWA 3.2-3.9	RWA 4.1-2.9	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
2	-1.2	1.3-2.5	6/72		6/72			6/72				
9	2.6-2.7	5.2-4.1	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
10	3.3-3.5	4.1-4.3	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
12	3.2-3.3	3.8-	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
13	2.5-2.6		6/72		6/72							
14	1.0	1.9-2.3	6/72	6/72	6/72			6/72				
17	1.3-3.0	2.0-1.9	6/72	6/72	6/72			6/72				
18	2.1-1.8	2.7-3.3	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
19	2.9-3.7	-	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
20	2.8-2.9	3.0-2.9	6/72	6/72	6/72			6/72				
21	4.4-2.9	4.3-2.5	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
22	3.3-4.1	4.1-	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
23	-1.0	2.6-1.0	6/72									
24	3.3-2.4	4.9-3.1	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
28	2.8-3.0	4.4-3.7	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
Number Achieving Objectives			22	19	21	15	14	20	0	14	15	0
Percent Achieving Objectives			100	86	95	58	64	91	00	64	68	00

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading
WA - Word Analysis

* Numbered objectives are described in Attachment III

PRIMARY A LEVEL OF OBJECTIVES - 2nd GRADE LEVEL SUBJECT AREA COMMUNICATION SKILLS

READING WORD ANALYSIS (Stadium Unit)

Pupil Number	Most Recent Norm Referenced Test Score		S	R	P	CW	R	CIF	VSE	DB	PS	SC FB
	11/71	5/72	1	2	3	4	5	6	7	8	9	10
29	RWA 2.6-2.4	RWA 3.3-3.2	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
31	2.5-2.5	2.4-3.5	6/72	6/72	6/72	6/72	6/72	6/72			6/72	
32	1.9-2.9	2.5-3.6	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
33	1.2-1.8	2.0-2.3	6/72	6/72	6/72			6/72				
34	3.5-2.1	3.6-4.7	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
35	3.3-1.6	3.9-3.4	6/72	6/72	6/72	6/72	6/72	6/72		6/72	6/72	
Number Achieving Objectives			6	6	6	6	6	6	0	6	6	0
Percent Achieving Objectives			100	100	100	100	100	100	00	100	100	00

Some pupils cannot be shown on the above profile - they are working above or below expectations. Individual profiles are attached for each pupil in this group.

R - Reading
WA - Word Analysis

* Numbered objectives are described in Attachment III

Attachment III

STATE MODEL OF ACCOUNTABILITY
PILOT DEMONSTRATION SCHOOL PROJECT

Objective Banks
for
Communication and Mathematics

Submitted
By
P.D. Graham
and
Division of Instruction, Curriculum
Wayne-Westland Community Schools

Summer 1972

TABLE OF CONTENTS

COMMUNICATION SKILLS

MATHEMATICAL SKILLS

COMMUNICATION SKILLS

Pre-Primer - Readiness - Grade Level K

Code	Objectives	Assessment Criterion
WM	1. Children will increase achievement knowledge of word meaning.	A. Knowledge of word meanings. M.R.T.* B. Understand verbal concepts. M.R.T.
L	2. Children will increase abilities in listening skills.	A. Comprehension of phrases and sentences. M.R.T. B. Sustained attention. M.R.T. C. Capacity for inference. M.R.T. D. Identifying rhyming words. M.R.T. E. Identifying beginning sounds. M.R.T.
A	3. Increase recognition of lower case letters by name.	A. Symbol recognition. M.R.T.
M	4. Children will increase visual perception.	A. Visual perception of similarities. M.R.T. B. Likenesses and differences in word forms and figures. M.R.T.
C	5. Increase small motor control and visual perception.	A. Eye-hand coordination. M.R.T. B. Figure ground. M.R.T. C. Position in space. M.R.T. D. Spatial relationships. M.R.T.

Primer - Reading - Grade Level 1

Code	Objectives	Assessment Criterion
LC, LS	1. Students will learn to recognize small and capital letters.	A. Production of small and capital letters. M.A.T.** B. Recognition of small letters. M.A.T. C. Recognition of capital letters. M.A.T.
SW	2. Students will learn to recognize words from a picture.	A. Recognition of words from association with a picture. M.A.T.

* M.R.T. - Metropolitan Readiness Test
** M.A.T. - Metropolitan Achievement Test

Communication Skills
Primer - Reading (con't)
Page Two --

Code	Objectives	Assessment Criterion
SS	3. Students will increase their achievement in sentence meaning.	A. Recognition of sentence meaning from picture clues. M.A.T.*

Primer - Listening Skills - Grade Level 1

Code	Objectives	Assessment Criterion
PB, PE	4. Students will learn to increase their auditory perception of beginning and ending sounds.	A. Production of auditory to visual response. M.A.T. B. Recognition of aural beginning sounds. M.A.T. C. Recognition of aural ending sounds. M.A.T.
LB, LE	5. Students will learn to associate a beginning and ending sound with a letter symbol.	A. Auditory discrimination of beginning and ending sounds. M.A.T. B. Transpose auditory beginning sounds to letter symbol. M.A.T. C. Transpose auditory ending sounds to letter symbol. M.A.T.
WW	6. Students will learn to match spoken words with written words.	A. Recognition of written words from spoken words. M.A.T.

Primary A - Word Analysis - Grade Level 2

Code	Objectives	Assessment Criterion
CW	1. Students will learn to recognize often confused sight words.	A. Recognition of sight words. M.A.T.
R	2. Students will overcome tendency to make reversals.	A. Tendency to make reversals diminishes. M.A.T.
IC, FC	3. Students will increase their achievement in the recognition and production of initial and final consonant sounds.	A. Production of consonant sounds. M.A.T. B. Recognition of initial consonant sounds. M.A.T. C. Recognition of final consonant sounds. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Communication Skills
2 Primary A - Word Analysis (con't)
Page Three --

Code	Objectives	Assessment Criterion
MV, RV, DV, SE	4. Students will increase their achievement in the recognition and production of medials, R-controlled and double vowels, and silent E.	A. Production of vowel sounds. M.A.T.* B. Recognition of medial vowels. M.A.T. C. Recognition of R-controlled vowels. M.A.T. D. Recognition of double vowles. M.A.T. E. Effect of silent E. M.A.T.
DB	5. Students will learn to recognize initial consonant digraphs and blends.	A. Production of initial consonant digraphs and blends. M.A.T. B. Recognition of initial consonant digraphs and blends. M.A.T.
PR, SF	6. Students will increase their achievement in the recognition and use of prefixes and suffixes.	A. Recognition of prefixes and suffixes. M.A.T. B. Function of prefixes and suffixes. M.A.T.
SC, FB	7. Students will increase their achievement in recognition and production of final blends, digraphs, and silent consonants.	A. Production of final blends and digraphs. M.A.T. B. Recognition of final blends and digraphs. M.A.T. C. Recognition of silent consonants. M.A.T.

Primary A - Reading - Grade Level 2

	Objectives	Assessment Criterion
S	8. Students will increase their achievement in sentence meaning.	A. Recognition of sentence meaning from picture clues. M.A.T.
R	9. Students will increase their achievement in sentence meaning from reading riddles.	A. Recognition of sentence meaning from word clues. M.A.T.
P	10. Students will increase their achievement of comprehension from paragraph reading.	A. Factual comprehension after reading a paragraph.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
	Primary B - Reading - Grade Level 3	
S	1. Students will increase their achievement in sentence meaning from picture clues.	A. Recognition of sentence meaning from picture clues. M.A.T.*
ST	2. Students will increase their achievement in comprehension from paragraph reading.	A. Recognition of sentence meaning from factual clues. M.A.T. B. Comprehension - drawing conclusions. M.A.T.
	Primary B - Word Analysis - Grade Level 3	
CW, R	3. Students will learn to recognize often confused sight words and will overcome tendency to make reversals.	A. Recognition of sight words. M.A.T. B. Tendency to make reversals diminishes. M.A.T.
IC, FC, SC	4. Students will increase their achievement in the recognition and production Initial, Final, and Silent Consonants.	A. Production of Consonant Sounds. M.A.T. B. Recognition of Initial Consonant Sounds. M.A.T. C. Recognition of Final Consonant Sounds. M.A.T. D. Recognition of Silent Consonant Sounds. M.A.T.
MV	5. Students will increase their achievement in recognition and production of medial vowels.	A. Production of vowel sounds. M.A.T. B. Recognition of vowel sounds. M.A.T.
DB, EB	6. Students will increase their achievement in Initial and Final Consonant Digraphs and Blends.	A. Production of Initial and Final Consonant Digraphs and Blends. M.A.T. B. Recognition of Initial and Final Consonant Digraphs and Blends. M.A.T.
RV, DV, SE	7. Students will increase their achievement and production in R-controlled, couble vowels, and silent "e" patterns.	A. Recognition of prefixes and suffixes. M.A.T. B. Recognition of R-controlled and double vowels. M.A.T. C. Recognition of silent "e" patterns. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
PR, SF	8. Students will increase their achievement and use of prefixes and suffixes.	A. Recognition of prefixes and suffixes. M.A.T. * B. Function of prefixes and suffixes. M.A.T.

Elementary - Language Skills - Grade Level 4

	Objectives	Assessment Criterion
T	1. Student will be able to recognize Telling Sentence.	A. Recognition of Telling Sentence. M.A.T.
AS	2. Student will be able to recognize Asking Sentence.	A. Recognition of Asking Sentence. M.A.T.
N	3. Student will be able to recognize an Incomplete Sentence.	A. Recognition of an Incomplete Sentence. M.A.T.
P, CM, QS, AP	4. Students will increase their achievement in the recognition and production of punctuation in context.	A. Production of punctuation. M.A.T. B. Production and recognition of the period. M.A.T. C. Production and recognition of the comma. M.A.T. D. Production and recognition of the question mark. M.A.T. E. Production and recognition of the apostrophe. M.A.T.
CP	5. Students will increase their achievement in the use of Capitalization.	A. Production of capitalization. M.A.T. B. Recognition of capitalization. M.A.T.
UV, UP, UA	6. Students will increase their achievement in verb usage and use of pronouns and adjectives.	A. Production of correct verb usage. M.A.T. B. Production of correct use of pronouns. M.A.T. C. Production of correct use of adjectives. M.A.T.
NE	7. Students will increase their achievement to recognize correct segments of a sentence.	A. Recognition of correct segments within a sentence. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Elementary - Reading - Grade Level 4

Code	Objectives	Assessment Criterion
MT	8. Students will learn to comprehend the main thought in a paragraph.	A. Comprehension of main thought. M.A.T.*
IN	9. Students will learn to assimilate inference from paragraph reading.	A. Production of a conclusion from inference. M.A.T.
LT	10. Students will learn the literal meaning from paragraph reading.	A. Production of literal meaning from paragraph meaning. M.A.T.
WK	11. Students will learn to comprehend word knowledge from context.	A. Production of word knowledge from context. M.A.T.

Intermediate - Reading - Grade Level 5 & 6

Code	Objectives	Assessment Criterion
MT	1. Students will learn to comprehend the main thought in a paragraph.	A. Comprehension of main thought. M.A.T.
IN	2. Students will learn to assimilate inference from paragraph reading.	A. Production of a conclusion from inference. M.A.T.
LT	3. Students will learn the literal meaning from paragraph meaning.	A. Production of literal meaning from paragraph meaning. M.A.T.
WK	4. Students will learn to comprehend word knowledge from context.	A. Production of word knowledge from context. M.A.T.

Intermediate - Word Knowledge Skills - Grade Level 5 & 6

Code	Objectives	Assessment Criterion
GI	5. Students will increase their achievement in general word meaning	A. Recognition and production of general word meaing. M.A.T.
SS	6. Students will increase their achievement in Social Studies word meaning.	A. Recognition and production of Social Studies word Meaing. M.A.T.
SC	7. Students will increeace their achievement in Science and Mathematics word meanings.	A. Production of word meaning in Science and Mathematics. M.A.T. B. Recognition of Science word meanings. M.A.T. C. Recognition of Mathematics word meanings. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
AT	8. Students will increase their achievement in Antonyms.	A. Recognition and production of Anyonyms. M.A.T.*

Intermediate - Spelling Skills - Grade Level 5 & 6

Code	Objectives	Assessment Criterion
DC	9. Students will increase their achievement in the recognition and production of Doubling Consonants.	A. Production of Doubling Consonants. M.A.T.
WC	10. Students will increase their achievement in visual and auditory recognition of consonants missing or misplaced in words.	A. Recognition of missing or misplaced consonants in words. M.A.T. B. Production of missing or misplaced consonants in words. M.A.T.
MV, MX, VC	11. Students will increase their achievement in the recognition and production of Missing, Extra Vowels, or Vowel Confusion.	A. Recognition of missing, extra vowels, or vowel confusion. M.A.T.
OC	12. Students will learn to recognize often confused misspelled words.	A. Recognition and production of often confused misspelled words. M.A.T.

Intermediate - Language: Study Skills - Grade Level 5 & 6

Code	Objectives	Assessment Criterion
SI	13. Students will increase their achievement in the knowledge of sources of information.	A. Ability to select the proper source of information. M.A.T.
SD	14. Students will increase their achievement in Dictionary Skills relating to meaning, pronunciation, and division of Syllables.	A. Recognition and Production of Dictionary Skills. M.A.T.
GW	15. Students will increase their achievement in the use of Guide Words in the Dictionary.	A. Production in the use of Dictionary Guide Words. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Communication Skills
Intermediate - Language: Study Skills (con't)
Page Eight --

Code	Objectives	Assessment Criterion
TC	16. Students will increase their achievement in the use of the Table of Contents.	A. Production in the use of the Table of Contents. M.A.T.*
EN	17. Students will increase their achievement in the use of the Encyclopedia.	A. Production in the use of the Encyclopedia. M.A.T.

Intermediate - Language: Punctuation and Capitalization Usage - Grade Level 5 & 6

	Objectives	Assessment Criterion
P, OS, CL, EX	18. Students will increase their achievement in the use of period, question mark, colon, and exclamation point.	A. Recognition and production of period, question mark, colon, and exclamation point. M.A.T.
CM	19. Students will increase their achievement in the use of the comma.	A. Recognition and production of comma. M.A.T.
AP, QT	20. Students will increase their achievement in the use of the apostrophe, quotation mark.	A. Recognition and production of the apostrophe and quotation mark. M.A.T.

Intermediate - Language: Parts of Speech - Grade Level 5 & 6

	Objectives	Assessment Criterion
UA, AV	21. Students will increase their achievement in their knowledge of adjectives and adverbs.	A. Recognition and production of adjectives and adverbs in a sentence. M.A.T.
NN, UP	22. Student will increase their achievement in their knowledge of nouns and pronouns.	A. Recognition and production of nouns and pronouns. M.A.T.
UV	23. Students will increase their achievement in their knowledge of verbs.	A. Recognition and production of Verbs. M.A.T.
CP	24. Students will increase their achievement of capitalization.	A. Recognition and production of capitalization. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Communication Skills
Intermediate - Language: Parts of Speech (con't)
Page Nine --

Code	Objectives	Assessment Criterion
UV	25. Students will increase the achievement in the usage of verbs in sentences.	A. Recognition and production in verb usage. M.A.T.*
PX, UN, UA	26. Students will increase their achievement in the usage of pronouns, pronominal adjectives, nouns and adjectives.	A. Recognition and production of pronouns, pronominal adjectives, nouns, and adjectives. M.A.T.
NO	27. Students will increase their achievement to recognize correct segments of a sentence.	A. Recognition of correct segments within a sentence. M.A.T.

* M.A.T. - Metropolitan Achievement Test

MATHEMATICAL SKILLS

Pre-Primer - Readiness - Grade Level K

Code	Objectives	Assessment Criterion
Q	1. The student will demonstrate his understanding of quantitative concepts of size and quantity.	A. Understands comparative terms such as "big, small, long, short." M.R.T.* B. Understands terms such as "more than, greater than, smaller than, fewer, as many." M.R.T.
PD	2. The student will demonstrate his uderstanding of positional and directional concepts.	A. Describes and identifies the position (location) of an object in relation to self or another object. M.R.T. B. Describes and identifies the direction of an object in relation to self or to other object. M.R.T. C. Understands vocabulary such as right, left, above, below, and between.
S	3. The student will demonstrate his uderstanding of set concepts and set operations of comparison; joining and separation, through the use of concrete models (physical) and semi-concrete models (pictorial)--sets with 0-9 members.	A. Understands the meaning of set and members of a set. M.R.T. B. Identifies the largest - smallest object in a given set of different size objects. M.R.T. C. Identifies the longest - shortest object in a given set of different size objects. M.R.T. D. Compares two sets to determine if they are equivalent (1 - 1 correspondence). E. Compares two sets to determine which set has "more" members. M.R.T. F. Compares two sets to determine which set has "less" members. M.R.T. G. Constructs a model to show "as many members" as a given set (equivalent). M.R.T. H. Constructs a model to show "more members" than a given set. M.R.T. I. Constructs a model to show "less members" than a given set. M.R.T. J. Recognizes the number of members in a set visually without counting (0-4 members). M.R.T.

* M.R.T. - Metropolitan Readiness Test

Code	Objectives	Assessment Criterion
		K. Matches a set of objects (0-9) with a numeral. M.R.T.* L. Matches a numeral with a set (0-9 members). M.R.T. M. Associates the joining of two sets with addition. M.R.T. N. Associates the separating of two sets with subtraction. M.R.T.
NC	4. The student will demonstrate his ability to orally count by ones and tens, to count the number of onjects in a given set, and to identify an object in a set by its ordinal position.	A. Counts consecutive numbers through 30 (rote). M.R.T. B. Counts the number of objects in a set of 10 members. M.R.T. C. Identifies through counting "one more than" a given number 10. M.R.T. D. Counts the number of objects in a set of 20 members. M.R.T. E. Counts in descending order 10-0. M.R.T. F. Identifies an object in a set by its ordinal position. M.R.T. G. Counts by 5's through 100. M.R.T. H. Counts by 2's through 30. M.R.T.
NR	5. The student will demonstrate his ability to visually recognize a numeral representing a given number.	A. Recognizes numerals $\leq$10. M.R.T. B. Recognizes numerals $>$10. M.R.T. C Recognizes numerals in counting order. M.R.T. D. Recognizes the largest numeral among a set of 3-digit numerals. M.R.T. E. Recognizes a numeral between two given numerals $<$ 10. M.R.T. F. Recognizes a numeral between two given numerals (10-99). M.R.T.
NW	6. The student will demonstrate his ability to write numerals a) with/without specified order b) represented by a set of objects.	A. Writes the numerals 0-10 without order. M.R.T. B. Writes the numerals 0-10 in ascending order. M.R.T. C. Writes the numeral represented by a given number of objects in a set ($\leq$10). M.R.T.

* M.R.T. - Metropolitan Readiness Test

Code	Objectives	Assessment Criterion
G	7. The student will demonstrate his ability to visualize, identify and classify geometric shapes.	A. Differentiates among different solid shapes (ball, block). M.R.T.* B. Identifies plane shapes (rectangle, circle). M.R.T. C. Reproduces plane shapes. M.R.T. D. Relates geometric shapes to environment (door-rectangle). M.R.T. E. Identifies solid shapes (3 demensional) by name. M.R.T.
MT	8. The student will demonstrate his understanding of the vocabulary and common instruments used for measuring and recordind the passage of time. (calendar and clock)	A. Recognized time interval designations such as nap time, mealtime, and bedtime. M.R.T. B. Uses calendar-related units of time such as date, days, week, month, year and seasons. M.R.T. C. Comprehends time concepts of today, yesterday, and tomorrow. M.R.T. D. Distinguishes between hour-hand and minute-hand. M.R.T. E. Differentiates between like and unlike clock seetings. M.R.T. F. Recognizes on-the-hour settings. M.R.T.
MM	9. The student will demonstrate his ability to recognize a penny, nickel, dime, and quarter, and to identify the coin with the greatest monetary value.	A. Identifies a penny, nickel, dime, and quarter. M.R.T. B. Identifies a coin (penny, quarter) having greatest monetary value. M.R.T. C. Identifies an object having greatest monetary value. M.R.T. D. Recognizes penny-nickel-dime-quarter value relationships. M.R.T. E. Recognizes penny-nickel-dime value relationships. M.R.T.
PAS	10. The student will demonstrate his ability to identify a set of concrete or pictorial objects representing the answer to an addition or subtraction problem presented orally.	A. Associates the joining of two sets with the operation of addition. M.R.T. B. Associates the separation of a set with the operation of subtraction. M.R.T.

* M.R.T. - Metropolitan Readiness Test

Mathematical Skills
Pre-Primer - Readiness - Objective 10 (con't)
Page Four --

Code	Objectives	Assessment Criterion
PAS		C. Identifies an object representing the answer to a verbal addition problem (sum <10). M.R.T.* D. Identifies an object representing the answer to a verbal subtraction problem (difference <10). M.R.T. E. Groups by two to identify the answer to a verbal problem. M.R.T. F. Groups by three to identify the answer to a verbal problem. M.R.T.
F	11. The student will demonstrate his ability to identify fractional parts of an object (concrete or pictorial).	A. Identifies one-half of an object. M.R.T. B. Identifies one-fourth of an object. M.R.T.

Primer - Computation - Grade Level 1

	Objectives	Assessment Criterion
AD	1. Student will demonstrate his mastery in addition (sums <10) using 0-10 as addends.	A. Adding two 1-digit addends in vertical format. M.A.T.** B. Adding two 1-digit addends in horizontal format; use of frame for missing sum. M.A.T. C. Adding three 1-digit addedns in vertical format. M.A.T.
SB	2. Student will demonstrate mastery in subtraction (differences <10).	A. Subtracting two 1-digit numbers, difference $<$ 10, in vertical format. M.A.T. B. Subtracting two 1-digit numbers, difference $<$ 10, in horizontal format. M.A.T.

Primer - Concepts - Grade Level 1

	Objectives	Assessment Criterion
CN	3. Student will demonstrate his ability to classify objects according to size and quantity.	A. Differentiates between tallest and shortest. M.A.T. B. Differentiates between largest and smallest. M.A.T. C. Differentiates between the least and the greatest number of objects. M.A.T.

* M.R.T. - Metropolitan Readiness Test
** M.A.T. - Metropolitan Achievement Test

Mathematical Skills
Primer - Concepts (con't)
Page Five --

Code	Objectives	Assessment Criterion
CN	4. Student will demonstrate his ability to identify geometric shapes.	A. Recognized geometric figures such as a circle and square. M.A.T.*
CN	5. Student will demonstrate his understanding of set concepts and set operations of comparison, joining, and separation.	A. Matching of sets, 1-1 correspondence. M.A.T. B. Associating a number with a set containing 0-9 members. M.A.T. C. Determines which set contains the most or least number of objects. M.A.T. D. Partition of a set into equal parts (subsets)(½ a group). M.A.T. E. Identifies 1-10 objects in a set. M.A.T. F. Relates zero to the empty set. M.A.T.
CN	6. The student will demonstrate his ability to count and write the numerals 0-10, count by 2's, and order according to "one more than".	A. Counts to 10. M.A.T. B. Recognizes and writes numerals to 10. M.A.T. C. Orders numbers according "one more than". M.A.T. D. Determine which of 2 numbers (<10) is $>$ or $<$. M.A.T. E. Recognizes a given cardinal number and identifies the number of objects it represents. M.A.T. F. Writes the numeral that identifies a set of objects up to 10. M.A.T. G. Counts to 10 by 2's. M.A.T.
CN	7. The student will demonstrate his ability to tell time by the hour.	A. Differentiates between half-hour and hour time. M.A.T.
CN	8. The student will demonstrate his ability to identify coins.	A. Recognizes coins: penny, dime, nickel, and quarter. M.A.T.

Primary A - Computation - Grade Level 2

	Objectives	Assessment Criterion
Al	1. Student will demonstrate mastery in the addition of two 1-digit added.	A. Adding two 1-digit addends in vertical form, sums <11. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
A1		B. Adding two 1-digit addends in horizontal form, sums <11. M.A.T.*
A2	2. Student will demonstrate his ability to add a 1-digit addend and two 2-digit addends.	A. Adding a 1-digit addend with a 2-digit addend without renaming sums <100. M.A.T. B. Adding a 1-digit addend and a 2-digit addend with renaming sum <30, vertical format. M.A.T.
AM, SM	3. Student will demonstrate his ability to find missing addends and missing minuends.	A. Missing 1-digit addend in horizontal format, sum <11, use of frame. M.A.T. B. Missing 1-digit minuend in horizontal format, difference <10, use of frame. M.A.T.
A3	4. Student will demonstrate his ability to add three 1-digit addends.	A. Adding three 1-digit addends in vertical format, sums <10. M.A.T.
S1	5. Student will demonstrate his ability to subtract two 1-digit numbers.	A. Subtracting two 1-digit numbers in vertical and horizontal format, differences <10. M.A.T.
S2	6. Student will demonstrate his ability to subtract with 1-and 2-digit numbers.	A. Subtracting a 1-digit number from a 2-digit number in vertical format, differences <20. M.A.T. B. Subtracting two 2-digit numbers in vertical format, differences <100. M.A.T.

Primary A - Concepts - Grade Level 2

	Objectives	Assessment Criterion
CO, NR	7. The student will demonstrate his ability to: a) determine if the number of objects in a set is $>$, $=$, or $<$ the number of objects in another set. b) identify the sequential order of numbers and indicate the cardinal property of a number.	A. Matching equivalent sets, 1-1 correspondence. M.A.T. B. Counts the number of objects in a set (0-9 members). M.A.T. C. Identifies 2-digit numerals. M.A.T.
WN	8. The student will demonstrate his ability to reproduce any numeral <100.	A. Reproduces a numeral "one more than". M.A.T. B. Writes the numeral for a number presented by dictation. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
WN		C. Recognizes an empty set; can reproduce "zero". M.A.T.*
G, MS	9. The student will demonstrate his ability to understand geometric, positional, measurement and time concepts.	A. Identifies a circle, trinagle, square, and hexagon. M.A.T. B. Distinguishes between right and left. M.A.T. C. Recognizes the length of an object to the nearest inch. M.A.T. D. Differentiates between half-hour and hour time. M.A.T. E. Converts units of liquid measures (pints, quarts). M.A.T.
C, O, OH	10. Student will demonstrate his ability to: a) count a given number of objects <100. b) identify a given fractional number of objects. c) understand ordinal and cardinal numbers.	A. Counts a number of objects and associates the appropriate numeral to it. M.A.T. B. Identifies a number "one less than" a given number. M.A.T. C. Identifies a number "one greater than" a given number. M.A.T. D. Recognizes one-half of a given set. M.A.T. E. Identifies ordinal numbers. M.A.T.
MO	11. The student will demonstrate his ability to recognize coins and know the relationship among their values: penny, nickel, dime, and quarter.	A. Identifies a set of coins having the greatest value. M.A.T. B. Identifies a particular coin. M.A.T. C. Identifies equivalent money relationships. M.A.T. D. Adds coin values, amounts $<25¢$. M.A.T.
PV, NS	12. The student will demonstrate his understanding of place value (<100) and the sequencing of a number series by either consecutive multiples of 10 and odd or even order.	A. Identify two-place numerals (tens and ones). M.A.T. B. Names a two-place numeral expressed as "ones". M.A.T. C. Determines the number of tens a multiple of 10 represents. M.A.T. D. Completes a number series in multiples of 10. M.A.T. E. Completes a number series in multiples of 2. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
PA. PS	13. The student will demonstrate his ability to interpret and solve one-step addition and subtraction story problems presented orally.	A. Adds money values, amount $>$ 10¢, recognizes ¢ symbol. M.A.T.* B. Finds the total cost of a purchase. M.A.T. C. Understands phrases such as "how many more" and "less than". M.A.T.

Primary B - Computation - Grade Level 3

Code	Objectives	Assessment Criterion
A1, A2, A3, AD, AM	1. The student will demonstrate mastery in addition with two and three 1- and 2-digit addends, with and without renaming (horizontal and vertical format).	A. Adding two 1-digit addends, sums $>$11. M.A.T. B. Adding two 1-digit addends, with renaming. M.A.T. C. Adding a 2-digit addend and a 1-digit or 2-digit addend. M.A.T. D. Adding a 2-digit addend and a 1-digit or 2-digit addend with renaming. M.A.T. E. Finding a missing addend, horizontal format. M.A.T. F. Adding three 1-digit addends, without renaming. M.A.T. G. Adding three 1-digit addends with renaming. M.A.T. H. Adding three 2-digit addends without renaming. M.A.T. I. Adding three 2-digit addends with regrouping.M.A.T.
S1, S2, S3, SM, ML	2. The student will demonstrate mastery in subtraction with 1-digit and 2-digit numbers with and without renaming.	A. Subtracting with two 1-digit numbers, difference $<$ 11. M.A.T. B. Subtracting two 1-digit numbers, one being zero. M.A.T. C. Subtracting with 2-digit and 1-digit numbers, difference 10. M.A.T. D. Subtracting two 2-digit numbers, difference $<$ 100. M.A.T. E. Subtracting with 2-digit and 1-digit numbers in horizontal format. M.A.T. F. Subtracting two 2-digit numbers, with renaming.

* M.A.T. - Metropolitan Achievement Test

Mathematical Skills
Primary B - Computation - Objective 2 (con't)
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Code	Objectives	Assessment Criterion
S1, S2, S3, SM, SD		G. Subtracting two 3-digit numbers, difference <1000. M.A.T.* H. Subtracting 3- and 2-digit numbers, difference <100. M.A.T. I. Finding a missing subtrahend, horizontal format (use of frame). M.A.T. J. Finding a missing subtrahend, minuend, a multiple of 10. M.A.T. K. Finding a missing minuend, difference 100. M.A.T. L. Subtracting money values (dollars and cents) difference $<\$10$. M.A.T.
M, FR	3. The student will demonstrate his ability to multiply with 1-digit factors (basic facts) and to find the product when one factor is a fractional number.	A. Multiplying with two 1-digit factors, horizontal format. M.A.T. B. Finding a missing factor, one factor expressed as number name. M.A.T. C. Finding a missing factor, horizontal format. M.A.T. D. Multiplying with one factor being a fractional number and using "of" as operational symbol. M.A.T.

Primary B - Concepts - Grade Level 3

Code	Objectives	Assessment Criterion
G, MS, MO	4. The student will demonstrate proficiency in the use of the English units of measure (length, time, money, and temperature) and in knowing the relationships among them. The Student will demonstrate his ability to identify polygons and differentiate between line and line segments.	A. Identifies a specific geometric figure. M.A.T. B. Identifies a polygon with the least number of line segments. M.A.T. C. Recognizes the length of an object to nearest inch. M.A.T. D. Recognizes objects measured by pecks and bushels. M.A.T. E. Identifies instruments of measurement. M.A.T. F. Recognizes when the hands on a clock-face reflects hour-time. M.A.T. G. Identifies a date on the calendar in relation to the days of the week. M.A.T. H. Identifies a temperature reading expressed in degrees in relation to cold-hot range.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
G, MS, MO		I. Identifies the appropriate unit of measure for use in measuring a given distance. M.A.T.* J. Recognizes coins and finds the sum of the values of a given set of coins. M.A.T. K. Identifies equivalent coin value relationships. M.A.T.
C, FC	5. Student will demonstrate his ability to associate the cardinal number or name with a given set and to identify by its fractional number or name a geometric figure divided into equal parts.	A. Counting a number of objects in a set and associates a number name with a set. M.A.T. B. Counting a number of objects in a set and associates a number with the set. M.A.T. C. Determines the sum of a set of equal fractional parts. M.A.T. D. Identifies a figure that has been divided into a given number of equal parts (halves, thirds, and fourths). M.A.T.
NR, CO	6. The student will demonstrate his ability to identify numbers $>$, $=$, or $<$ a given number or set of objects and to identify different names for numbers.	A. Recognizes different number names for the same number. M.A.T. B. Identify the number "one greater than" a given number (<10). M.A.T. C. Identifies a number which is "one less than" a given number (<100). M.A.T. D. Recognizes equivalent sets. M.A.T.
NU, CS, AR	7. The student will demonstrate his ability to work with open and closed number sentences, and to partition a given set (array) into specified subsets.	A. Relates a number sentence to a story problem. M.A.T. B. Makes a number sentence true by finding a missing number. M.A.T. C. Makes a subtraction number sentence given a pictorial model. M.A.T. D. Grouping a set of objects into specified subsets. M.A.T. E. Makes a multiplication number sentence true given a pictorial model. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Mathematical Skills
Primary B - Concepts (con't)
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Code	Objectives	Assessment Criterion
EXPANDED PV, NS	8. The student will demonstrate his understanding of place-value, expanded notation and seriation.	A. Renames a numeral expressed in notation (1's, 10's and 100's) as a numeral. M.A.T.* B. Identifies the next multiple of 10 in a number sequence $<$ 100. M.A.T. C. Identifies the next multiple of 100 in a number sequence $<$ 1000. M.A.T. D. Renames a number in expanded notation (10's and 1's). M.A.T. E. Renames the sum of two addends in expanded notation (10's and 1's). M.A.T. F. Renames a number in expanded notation (100's, 10's and 1's). M.A.T. G. Identifies the next multiple of five in a number sequence 100, ascending and descending order. M.A.T.
I, LP	9. The student will demonstrate his ability to apply the laws and properties of the decimal numeration system and to differentiate between statements of equality and inequality.	A. States that the sum of two addends is either $>$, or $<$ the sum of two other addends. M.A.T. B. Relates a written number sentence to a number line. M.A.T. C. Renames two addends as two equivalent addends. M.A.T. D. Uses the distributive property to rename a number. M.A.T.

Elementary - Computation - Grade Level 4

	Objectives	Assessment Criterion
AN, AR	1. The student will demonstrate mastery in addition of three 3-digit addends, with and without regrouping, vertical an orizontal format.	A. Finding a missing addend, sums $<$ 10. M.A. B. Adding a 2-digit and a 1-digit addend, sums $<$ 100. M.A.T. C. Adding two 1-digit addends (basic fact). M.A.T. D. Adding three 1-digit addends, sums $<$ 30. M.A.T. E. Adding two 2-digit addends (multiples of ten), sums $\leq$ 100. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
AN, AR		F. Adding two 2-digit addends in horizontal format, sums $<$100. M.A.T.* G. Adding 2- and 1-digit addends with regrouping, sums $<$100. M.A.T. H. Adding three 2-digit addends, sums 1000. M.A.T. I. Adding two 3-digit and one 2-digit addends, sums $<$1000. M.A.T. J. Adding two 3-digit and one 2-digit in horizontal format. M.A.T.
SN	2. The student will demonstrate mastery in subtraction with multi-digit numbers without renaming.	A. Subtracting with multiples of 10, differences $<$ 100. M.A.T. B. Subtracting two 2-digit numbers, differences $<$100. M.A.T. C. Finding missing subtrahend (basic fact) in vertical format. M.A.T. D. Subtracting units of measures (denominate numbers). M.A.T.
SR	3. The student will demonstrate mastery in subtraction with multi-digit numbers with renaming.	A. Subtracting 1-and 2-digit numbers (basic fact). M.A.T. B. Subtracting two 3-digit numbers, difference $<$100. M.A.T. C. Subtracting two 4-digit numbers, difference $<$ 10,000. M.A.T. D. Subtracting two 3-digit numbers using "zero". M.A.T.
FR, FD	4. The student will demonstrate his ability in the addition and subtraction of fractions and money values.	A. Adding money values, sums $<$\$10. M.A.T. B. Adding a mixed number and a proper fraction with like denominators. C. Subtracting money values, sums $<$\$10. M.A.T. D. Subtracting money values, whole dollor minuend. M.A.T. E. Subtracting mixed numbers with like denominators. M.A.T.
MI, MF	5. The student will demonstrate his ability to multiply with fractional numbers and money values.	A. Finding a missing factor (basic fact) in horizontal format. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Mathematical Skills

Elementary - Computation - Objective 5 (con't)

Code	Objectives	Assessment Criterion
MI, MF		B. Multiplying two 1-digit factors, (basic fact) in vertical format. M.A.T.* C. Multyplying a 1-digit and a multiple of 10 ($<$ 100). M.A.T. D. Multiplying with 1- and 2-digit factors, product $<$ 100. M.A.T. E. Multiplying with 1- and 3-digit factors (use of zero). M.A.T. F. Multiplying with 2- and 3-digit factors (use of zero). M.A.T. G. Multiplying with a unit of measure (money) as one factor. M.A.T. H. Multiplying a proper fraction and a whole number, using "of" as operational symbol. M.A.T.
DN, DR	6. The student will demonstrate his ability in division with 3-digit dividends and 1-digit divisors, with and without remainder.	A. Dividing a 2-digit by a 1-digit number (basic fact). M.A.T. B. Dividing a 2-digit by a 1-digit number, no remainder. M.A.T. C. Dividing a 2-digit by a 1-digit number in horizontal format, (basic fact). M.A.T. D. Finding a missing dividend, horizontal format, (basic fact). M.A.T. E. Dividing a 3-digit dividend by a 1-digit divisor, without remainder. M.A.T. F. Dividing a 2-digit dividend by a 1-digit, with remainder. M.A.T.

Elementary - Concepts - Grade Level 4

	Objectives	Assessment Criterion
C, CO, AR, NS	7. The student will demonstrate his understanding of set concepts, grouping arrays into subsets, and non-consecutive sequential counting.	A. Counting a number of objects in a set and associating a number name with the set. M.A.T. B. Matching equivalent sets, 1-1 correspondence. M.A.T. C. Identifying elements common to two sets (intersection). M.A.T. D. Grouping a set of objects into subsets given an array. M.A.T. E. Counting by two's, odd number sequence ($<$ 100). M.A.T.

* M.A.T. - Metropolitan Achievement Test

Mathematical Skills
Elementary - Concepts (con't)

Code	Objectives	Assessment Criterion
MS, MD	8. The student will demonstrate his proficiency in the use of the English units of measure and in knowing the relationships among them.	A. Finding the length of an object to the nearest inch. M.A.T.* B. Identify the appropriate seasonal activity with a given Fahrenheit temperature reading. M.A.T. C. Telling time to the nearest quarter-hour. M.A.T. D. Determine the greatest linear unit of measure given several denominate numbers. M.A.T. E. Converts from one unit of measure to another (ounces through quarts). M.A.T. F. Recognizes coins and finds the sum of the values of a given set of coins. M.A.T. G. Knows coin value relationship through a dollar. M.A.T. H. Compares the value of a set of coins (written from) to determine least-greatest value. M.A.T.
PV	9. The student will demonstrate his understanding of place value by renaming numbers in expanded notation as a numeral and vice versa.	A. Renaming a numeral in expanded notation (1000's and 100's) as a numeral. M.A.T. B. Renaming a numeral in expanded notation (100's, 10's and 1's) as a numeral. M.A.T. C. Identifies a number whose value is closest to a given number. M.A.T. D. Renaming a numeral as a numeral in expanded notation (100's and 1's). M.A.T. E. Determine the numeral in which a given digit has the least value. M.A.T.
E, NU, D, RN	10. The student will demonstrate his ability to: a) estimate products and coin change b) identify a number sentence related to a model c) recognize the mathematical name for terms in addition and multiplication d) perform addition with Roman Numerals	A. Estimates the greatest product in multiplication of three 1-digit factors. M.A.T. B. Estimates the change received from a purchase of $< \$1$. M.A.T. C. Determines a picture that represents a given number sentence. M.A.T. D. Identifies the name for a number used in addition or multiplication. M.A.T. E. Performs addition with Roman numerals, sums expressed as Roman numerals. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
LP	11. The student will demonstrate his ability to apply the laws and properties of the decimal system.	A. Using multiplication property of zero. M.A.T.* B. Identifies the appropriate operational sign to use in a statement; multiplication property of 1. M.A.T. C. Using the addition and subtraction property of zero. M.A.T. D. Recognizes relationship between addition/multiplication, and subtraction/ division. M.A.T. E. Using the associative property of addition. M.A.T. F Recognizes that in decreasing the subtrahend by one in a given subtraction problem increases the difference by one. M.A.T. G. Recognizes the commutative property of addition. M.A.T. H. Recognized the appropriate inequality symbol to use to make a statement true. M.A.T.
G, NL	12. The student will demonstrate his ability to identify plane and solid geometric figures and to identify a line segment in relation to a number line.	A. Identifies a polygon with the least number of line segments. M.A.T. B. Recongnizes solid geometric figures. M.A.T. C. Differentiates among line segments, rays, lines and angles. M.A.T. D. Determines the distance a given point on a number line is from zero. M.A.T.
FC	13. The student will demonstrate his ability to recognize fractional regions and to write a fractional number in relation to a geometric model.	A. Identifies equal regions of a geometric figure as thirds, fourths, fifths. M.A.T. B. Compute the number of members in one-half of a set (written statement) M.A.T. C. Compares shaded regions to total regions to determine the fraction. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Mathematical Skills

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Intermediate - Computation - Grade Level 5 & 6

Code	Objectives	Assessment Criterion
NA	1. The student will demonstrate mastery in the addition of multi-digit addends with and without renaming (vertical or horizontal format).	A. Adding a 2-digit addend and a 1-digit addend, sums <100. M.A.T.* B. Adding multi-addends, 2 and 1-digit, sums <1000. M.A.T. C. Adding multi-addends, 3 and 2-digits in horizontal format, sums 1000. M.A.T. D. Finding a missing addend, which is a multiple of 10, sum 100. M.A.T. E. Adding multi 4-digit addends, sums >1000. M.A.T. F. Adding units of measure (denominate numbers: weeks and days, hours and minutes). M.A.T.
NS	2. The student will demonstrate mastery in subtraction of multi-digit numbers with and without renaming (vertical and horizontal format).	A. Subtracting two 2-digit numbers with renaming, vertical format. M.A.T. B. Subtracting two 4-digit numbers with renaiming, horizontal format. M.A.T. C. Subtracting with two multi-digit numbers with renaming, vertical format. M.A.T.
NM	3. The student will demonstrate mastery in multiplication with multi-digit factors, vertical and horizontal format.	A. Multiplying with two 1-digit factors (basic fact) in vertical format. M.A.T. B. Multiplying with 2 and 1-digit factors, in horizontal format. M.A.T. C. Multiplying with 1 and 2-digit factors, in vertical format. M.A.T. D. Finding a missing factor in horizontal format, use of frame. M.A.T. E. Multiplying with a multiple of 10 as a factor. M.A.T.
ND, AV	4. The student will demonstrate mastery in division, with and without remainders.	A. Dividing a 2-digit number by a 1-digit number (basic fact), use of ⌐‾ symbol. M.A.T. B. Finding a missing factor (divisor) in horizontal format, use of frame. (basic fact). M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
ND, NV		C. Finding a missing product (dividend) in horizontal format, use of ÷ symbol. (basic fact) M.A.T.* D. Dividing a 2-digit number by a 1-digit number, expressing remainders with "r" notation. M.A.T. E. Dividing a 3-digit number by a 2-digit number in "fractional" format, no remainder. M.A.T. F. Dividing a 4-digit number by a 2-digit number (long division), no remainder. M.A.T. G. Computing the average of multi-2-digit addends. M.A.T.
FA, FS	5. The student will demonstrate his ability to add and subtract fractional numbers.	A. Adding two fractions with like denominators, sums <1, horizontal format. M.A.T. B. Adding two fractions with like denominators, sums <1, vertical format. M.A.T. C. Adding two mixed fractions with unlike denominators, vertical format. M.A.T. D. Subtracting two fractions with like denominators, difference <1. M.A.T. E. Subtracting two mixed fractions with like denominators (no renaming), differences <1. M.A.T. F. Subtracting two fractions in horizontal format, difference <1, with like denominators. M.A.T.
FM, FD FR	6. The student will demonstrate his ability to multiply and divide with fractional numbers and to express answers in simplified equivalent form.	A. Multiplying a proper fraction and a whole number, use of "of" to indicate multiplication. M.A.T. B. Multiplying a proper fraction and a unit of measure (denominate number), horizontal format. C. Multiplying two proper fractions, use of "X" as operational symbol. M.A.T. D. Determines the number of equal units (parts) represented by a fraction. M.A.T. E. Simplifying a proper fraction and expressing it as an equivalent fraction. M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
D, PR, RD	7. The student will demonstrate his ability to perform the basic operations with decimals and to "round off" solutions to the nearest tenth.	A. Subtracting mixed decimal-fractions expressed to the hundredths position. M.A.T.* B. Subtracting money values ($< \$10$) with renaming. M.A.T. C. Adding money values ($< \$100000$) with renaming. M.A.T. D. Finding a percent of a number horizontal format. M.A.T. E. Dividing a decimal (thousandths) by a 1-digit whole number. M.A.T. F. Rounding a decimal (hundredths) to tenths. M.A.T. ____

Intermediate - Concepts - Grade Level 5 & 6

Code	Objectives	Assessment Criterion
FE, R	8. The student will demonstrate his ability to rename fractions as equivalent fractions and decimals, compare fractions as to greatest value and compute rate problems.	A. Compares shaded regions of a pictorial model to total regions to determine a fractional number. M.A.T. B. Renaming a fraction as an equivalent fraction, use of frame for missing numerator. M.A.T. C. Renaming a fraction as an equivalent fraction, multiplying numerator and denominator by same factor. M.A.T. D. Identifying a fractional number having the greatest value. M.A.T. E. Computing a percent of a fraction. M.A.T. F. Identifying an equivalent decimal for a given fraction. M.A.T. G. Computing the rate per hour, given a rate per several hours. M.A.T.
AR, RN, NS, S	9. The student will demonstrate his ability to order numbers in an ascending or descending sequence and to apply the "intersection of sets" concept to a given model or a written format.	A. Partitioning a set of objects (array) into subsets. M.A.T. B. Identifying the next numeral in a sequence of 2 expressed Roman numeral notation. M.A.T. C. Identifying the next numeral in a descending sequence of 9 (sequence <100). M.A.T. D. Identifying the next number in an ascending sequence of 3 (sequence <100). M.A.T.

* M.A.T. - Metropolitan Achievement Test

Mathematical Skills
Intermediate - Concepts - Objective 2 (con't)

Code	Objectives	Assessment Criterion
AR, RN, NS, S		E. Interpreting circle diagrams related to the intersection of sets. M.A.T.* F. Determing the number of members in the intersection of 2 sets expressed in set notation. M.A.T.
NB, PV	10. The student will demonstrate his understanding of place value concepts renaming numerals in expanded notation and vice versa, and the use of negative numbers in relation to temperature readings.	A. Recognizing above and below zero temperature readings, subtraction of temperature readings expressed in degrees. M.A.T. B. Renaming tens, ones, and hundreds as a numeral. M.A.T. C. Renaming a numeral in expanded notation (hundreds, tens, and ones.) M.A.T. D. Recognizing a given digit that has greatest place value. M.A.T.
LP	11. The student will demonstrate his ability to apply the laws and properties of the decimal system.	A. Using the addition and subtraction property of zero. M.A.T. B. Using the multiplication property of zero, identifying the appropriate operational symbol to complete a true statement. M.A.T. C. Using the distributive property. M.A.T. D. Using the associative law of multiplication. M.A.T. E. Using the reciprocal property in the division of fractions. M.A.T. F. Using the commutative property of multiplication with decimal fractions. M.A.T.
G, NL	12. The student will demonstrate his ability to name and identify geometric polygons and solids, and to associate numbers as points on a number line.	A. Identifying a geometric solid (pictorial model), given the name of a solid. M.A.T. B. Identifying the name of a geometric solid, given a written description of a geometric solid. M.A.T. C. Understanding of the definitions of line, line segment, points, and polygons. M.A.T. D. Naming a right angle using angle symbol ($\angle XYZ$). M.A.T.

* M.A.T. - Metropolitan Achievement Test

Code	Objectives	Assessment Criterion
G, NL		E. Identifying a simple closed path (figure). M.A.T.* F. Using a number line to compare fractional numbers. M.A.T. G. Using a number line to estimate the decimal value of a given point. M.A.T.
ER, MS	13. The student will demonstrate his ability to estimate products, quotients, and change and to round off numbers and units of measure.	A. Estimating the change one would receive from a purchase $< \$1$. M.A.T. B. Estimating the greatest product with 4 and 3-digit factos. M.A.T C. Estimating the quotient of a division problem with 4 and 3-digit numbers. M.A.T. D. Rounding a 3-digit number to the nearest hundred. M.A.T. E. Identifying relationships of linear units of measure. M.A.T. F. Rounding linear units of measure to the nearest whole unit. M.A.T.
FP, I	14. The student will demonstrate his ability to distinguish between prime and composite numbers and his understanding of equality concepts.	A. Determining a number that has a given set of numbers as factors. M.A.T. B. Recognizing a number as either prime or composite. M.A.T. C. Comparing units of measure (weight) to determine $>$, $=$, $<$, relationship. M.A.T. D. Solving an inequality statement to find the replacement value for a variable. M.A.T.

* M.A.T. - Metropolitan Achievement Test

ATTACHMENT IV

The following three exhibits are samples of survey questions given to students, staff and parents:

Exhibit #1 - Student Survey sample
Exhibit #2 - Staff Survey sample
Exhibit #3 - Parent Survey sample with narritive of total results

STUDENT QUESTIONNAIRE

The opinionnaire was designed by the Differentiated staffing project. It was given to 50 randomly sampled students, 25 primary and 25 intermediate, half boys and half girls. Only one boy or girl from a family was chosen.

Sample Questions and Results:

Key: MT = most of the time; ST = sometimes; HE = hardly ever

1. Do you like the work in your learning center?

   MT - 72% ST - 26% HE - 2%

2. If you want to know something or have a question to ask about your school work, will the teacher let you ask?

   MT - 64% ST - 24% HE - 12%

3. Does the work in your learning center seem so hard that you just give up and stop trying to do it?

   MT - 16% ST - 30% HE - 54%

4. Do you have fun in your learning center?

   MT - 58% ST - 36% HE - 6%

STAFF QUESTIONNAIRE

Edgewood Questionnaire

The general directions were:

Under the P.D. Graham open space, differentiated staffing plan the opportunities for students to do certain things may be more about the same, or less than they were under a traditional plan.

Teachers, administrators, paraprofessionals, voluntary aides, and student teachers responded.

Sample Questions and Results:

Key: CM = considerably more; M = more; S = some; L = less; CL = considerably less

1. To get individual help from teachers

   CM - 21 M - 18 S - 6 L - 1 CL - 0

2. To enjoy the subject and classwork

   CM - 26 M - 17 S - 2 L - 1 CL - 0

3. To be successful in the work required

   CM - 26 M - 18 S - 2 L - 0 CL - 0

4. To learn to think for himself

   CM - 28 M - 17 S - 1 L - 0 CL - 0

5. To be responsible for his own learning

   CM - 24 M - 18 S - 4 L - 0 CL - 0

6. To see the purpose for learning the subject matter

   CM - 13 M - 24 S - 9 L - 0 CL - 0

PARENT SURVEY SUMMARY

There were approximately 780 children from 462 families that could have returned a questionnaire. We asked that parents return a questionnaire for each child in a family who attends P.D. Graham school.

304 questionnaires were returned

39% responded.

The large majority of children liked school and parents believe the school made an improved fiference in their child's academic achievement.

A majority felt the school made an improved difference in the children's social behavior.

A large majority felt their children were receiving additional individualized attention, feeling free to come to the school at anytime to discuss a concern, liking the team teaching model, and expressing a positive attitude toward the school.

A small majority felt the Thursday 1:00 - 4:00 schedule is necessary. There is about a 50-50 split regarding the Tuesday 1:00 - 4:00 schedule as necessary for teacher planning.

Parent Survey Sample:

1. My child likes the learning environment at P.D. Graham School.

76	( )	Strongly Agree
184	( )	Agree
26	( )	Disagree
5	( )	Strongly Disagree

2. I feel that my child is receiving additional individualized attention at P.D. Graham School.

66	( )	Strongly Agree
172	( )	Agree
51	( )	Disagree
14	( )	Strongly Disagree

3. I feel the program offered at P.D. Graham does a good job of teaching the fundamentals (reading, writing, and arithmetic).

58	( )	Strongly Agree
170	( )	Agree
42	( )	Disagree
12	( )	Strongly Disagree

4. The staff at P.D. Graham welcomes a discussion regarding my concerns.

93	( )	Strongly Agree
182	( )	Agree
9	( )	Disagree
2	( )	Strongly Disagree

5. I believe the Tuesday 1:00 - 4:00 planning and preparation schedule is necessary.

27	( )	Strongly Agree
104	( )	Agree
93	( )	Disagree
43	( )	Strongly Disagree

6. I believe the Thursday 1:00 - 4:00 parent-teacher conference schedule is necessary.

50	( )	Strongly Agree
118	( )	Agree
74	( )	Disagree
39	( )	Strongly Disagree

Attachment V

P.D. GRAHAM ELEMENTARY SCHOOL

SECTION 3 PROPOSAL

1972-73

LEARNING CENTERS

Contact Person	Muriel VanPatten/Delores Louis
Instructional Improvement Committee	Donald Massey Barbara Mettetal Georgina Cseresznye Cheryl Dell Donald Brooks Joan Watson Donna Carden Marilyn Carlson
Parent Committee	Christine Tolentino Irene Wetli Donna Scott Anna Lundry
Program Committee	Mathematics: Joan Watson Cheryl Dell Gene Domanke Reading: Georgina Cseresznye Donna Carden Ken Carlson

I. PURPOSE OF PROGRAM: To raise the cognitive achievement of all target students by developing and implementing skill centers.

SKILL CENTERS will be used as major vehicles for individualizing learning experience in the basic skill areas of reading and mathematics. Five (5) specific types of centers will be developed and implemented in all classrooms.

CLASSIFICATION OF SKILL CENTERS

Inventory Centers

These centers provide the opportunity to assess the development of the children in arithmetic, reading, problem solving, etc.

Usually short work periods.

Teacher uses completed assignment (s) to determine the operating level of the child. A conference with the child at this time is of great value in helping the teacher and child to establish realistic goals.

Prescriptive Centers

The work at the Prescriptive Center is a logical outcome of work at the Inventory Center.

Use of this type of center usually presumes a regular, daily work pattern.

The level of work and the type of activity are frequently prepared by the teacher alone; however, a conference between the child and the teacher can become a part of the procedure and the resulting commitment can produce results which are unlikely to be achieved otherwise.

Single Skill Centers

Usually constructed from one content area.

Usually require the student to work at a single skill, appropriate to his maturational and educational development.

It assumes the child can perform the task and that the accuracy and efficiency will develop through the practice provided in the activity.

The center can have one task assignment or be open and provide a variety of task assignments from which to choose.

Multi-Skilled Centers

Activities are characterized either by their complexity and/or their sequence.

Assignments are usually problem-centered and require the student to use a variety of materials in resolving the question.

Major objective remains acquiring proficiency in the skills involved.

Programmed Centers

Center utilizes commercially available programmed materials.

The kit provides for cognitive development in a content area.

Skill Centers will be compatible with the student's preferred learning style; i.e., independent study, pupil teamed, tutorial, small group or lab, and any combination. Multi-level, multi-media, i.e., texts, devices and kits will be utilized to meet the learner's audio and visual perception needs in such learning techniques as research, classification, comparison and drill.

The concept of Learning Centers and Labs are an integral part of the school day. Skill Centers are presently under development and, in many cases, in the implementation stages.

At all times of the school day, children will be observed in Learning Centers with written performance objectives, in activities prescribed previously for the continued development of their cognitive needs.

DESCRIPTION OF EXISTING SITUATION AND CONDITIONS

Home

The attendance area is new. The very concept of a neighborhood has yet to develop. The new families have moved mostly from Detroit (49), Southern States (7), Lincoln-Jefferson W.W.C.S. (26). Most of the children attended schools in the surrounding W.W.C.S. attendance areas. Some problem exists in small children's gangs, usually older Junior High School students. Families of different value systems and attitudes are living side by side. Federal low-cost housing (235) is dispersed throughout the new development. We have identified 20% of our students (31 families) that are either ADC, welfare or one parent homes. Conflict sometimes occurs due to conflicting values, different life style, and different ideas about how children should be raised. Frustration occurs frequently regarding new construction in the area, home repair, etc. It will take a few years to understand one another, accepting divergent life styles and needs.

Parents have identified the need for more recreational opportunities for students after school and on Saturdays.

Some parents are still fearful of the "new" program at P. D. Graham. The Voluntary Aide Program, Conference Model for reporting progress to include a narrative or check list,

the Open Parent-Visitation policy and small orientation group meetings are helping to overcome the unknown and fear regarding the program.

The "open enrollment" giving all parents a choice to move their children revealed that less than 3½% choose to move.

Our parent survey taken in June 1972 indicated:

The large majority of children liked school and that parents believed the school made an improved difference in their children's academic achievement.

A majority felt the school made an improved difference in the children's social behavior.

A large majority felt their children were receiving additional individualized attention, feeling free to come to the school at any time to discuss a concern, liking the team teaching model, and expressing a positive attitude toward the school.

A very slight majority felt the Thursday 1:00-4:00 schedule is necessary. There is a 50-50 split regarding the Tuesday 1:00-4:00 schedule as necessary for teacher planning.

School

Each staff member is committed to developing an individualized and personalized multi-unit program.

Following the implementation of our proposal and the program in its entirety, our situation will be different in the following ways:

1. All students who are below grade level by one year or more, or who have been identified as not achieving according to our observable expectations, will be involved in an individualized program, tailor-made to meet their specific cognitive needs.

2. District Umbrella Objectives will be used to develop specific program objectives and prescriptions for all target children.

3. An adequate selection of diversified materials will be available and in use in Skill Centers.

4. Para-professionals will be setting-up and running the Skill enters.

5. Students will become more self-directed and will demonstrate their responsibility by setting up, logging achievement, and utilizing the Skill Centers without the constant supervision of adults.

6. Professional Staff will increase skill in writing performance objectives and prescriptions.

7. Professional Staff will learn to manage system management systems.

8. Approximately one-third of the Professional Staff will develop the expertise to diagnose cognitive learning problems and prescribe treatment.

9. Para-professional job description will be more complex and specific in terms of defined role and assigned tasks.

10. The P. D. Graham program will be individualized to the extent that skills can be pursued in a number of different ways.

II. NUMBER OF PERSONNEL INVOLVED

Teachers: 26 classroom
1 reading teacher
Total 27

Para-professionals: 9

III. DURATION OF PROGRAM

September 72 to June 74

TIME-TABLE OF ACTIVITIES: THREE YEAR PERIOD

	Disposition
1971-72 First Semester	
Initial development and implementation of Learning Centers	Completed
Initial development and use of student contracts and written prescriptions.	Partially Completed
Initial development and use of Skill Centers	Completed
Initial use of record keeping system.	Completed
1971-72 Second Semester	
Two or more Inventory Centers will be implemented in each team in December	Completed

	Disposition
Two or more Prescriptive Centers will be implemented in each team in December.	Completed
Two or more Mathematics and Reading Single Skill Centers will be implemented in each team in January.	Completed
Three or more Programmed Centers will be implemented in each team in February.	Completed
Two or more Mathematics and Reading Multi-Skill Centers will be implemented in each team in February.	Completed
Three or more Mathematics and Reading Programmed Centers will be implemented in each team in February.	Completed
One or more teachers of each team will have developed the skill to write daily prescriptions for each target student by December.	Partially Completed
Storage and check-out system will be developed by January.	Completed
Each Para-Professional will be setting up and running six (6) Skill Centers by February and ten (10) Skill Centers by April.	Partially Completed
1972-73 Begin Implementation of Wisconsin Read	
Continued development of packaged centers	
Continued implementation of skill centers designed by certified staff and set-up and run Para-professionals.	
Finalizing the record keeping model, student contracts and prescriptions.	
1973-74 Under the direction and design of teachers, Para-Professionals will be setting up and running Skill Centers.	

There will be continued refinement of Skill Centers as an integral part of the IGE program. It is important to note that teachers will be freed to concentrate their time on planning, identifying materials and program, activities needed, and evaluation techniques for each target student. They will be freed of the tasks of getting materials, setting up the Skill Center and running the Skill Centers. The teacher's time will be directed to diagnosis of need, designing program, teaching the student and evaluating the experience.

IV. COST OF PROGRAM

I.G.E., Section 3, and Title 1 are impossible to separate as they are all integral at the P. D. Graham school. It is also important to realize we are opening a new two teacher primary team.

AREA	1972-73 COST ESTIMATE
Personnel	
1. Section 3 Coordinator (Reading Teacher)	In kind - normal budget
2. Nine (9) Para-Professionals - Eight (8) Para-Professionals work directly with the certified staff to reenforce instruction. One (1) Para-Professional coordinates visitations and the voluntary aide program.	$36,000.00 Section 3 and Title 1
In-Service	
1. Wisconsin Read 12 hours (2 days) per certified staff at $7.00 an hour.	$2,268.00 D.S. project - 1,000,00 will cover $1,268.00 $1,000.00
2. Four (4) certified staff in-service in Madison, Wisconsin.	$600.00
3. Unit Leaders: 30 hrs. (5 days) 7 people, $7.00 hr.	$1,470.00
4. Para-Professionals	No cost if Tuesday-Thursday schedule continues.
	Total $3,338.00

AREA	1972-73 COST ESTIMATE
Materials	
1. Wisconsin Read Management system and additional needed reading materials.	$1,600.00
2. Holt, Rinehart and Winston Math Units	297.00
3. Alpha I	542.50
4. AAAS - Part C	350.00
5. 1142 Expendable supplies	500.00
	Total $3,289.50
Capital Outlay	
1. Eight 4-drawer files for Wisconsin Read	$ 399.20
2. Twelve 2-drawer files for each team	480.60
	Total $ 879.80
	GRAND TOTAL $43,507.30

V. RESOURCE PERSONS NECESSARY

Curriculum Coordinators
I.G.E. Facilatators
Director Elementary Education
Assistant Superintendent Curriculum
Wisconsin Read Consultants

VI. FACILITY TO BE USED

The program will be located within all classrooms. Classroom teachers and Para-professionals will utilize all existing space available within the building i.e., IMC hallways, hallways between three teacher team areas, main hallways, etc.

VII. SOURCE OF FUNDING

Section 3 and Title 1

VIII. OBJECTIVES

E-4065

Name of District	(Check One or Both)	
Wayne-Westland Community Schools	[X] Title I [X] Section 3	
Name of Building	**Component**	**Objective No.**
P.D. Graham	Reading	1

A. DESCRIPTION OF PROGRAM AND EVALUATION

PERFORMANCE OBJECTIVE NUMBER # 1	DESCRIPTION OF PLANNED PROGRAM COMPONENT	EVALUATION DESIGN
1. Individual(s) Section 3 Students	Students will receive reading instruction daily in the regular classroom's skill center using the Wisconsin Read management system. Individualized (tutorial and small group) instruction will be provided by the classroom teacher with the assistance of an aide.	Data Collection Schedule The Wisconsin tests will be administered in September and through out the year as needed. The Metropolitan Achievement Test will be administered in the fall and spring.
2. Behavior Knowledge Word attack Skills		
3. Objec. of Behavior Reading		Data Analysis The average gain per month in grade equivalent units will be calculated and a comparison made of the Wisconsin results and the Metropolitan results.
4. Time October through May 1972-73 School Year		
5. Measurement Pre and Post tests Wisconsin Read Program Log record of achievement on McBee cards		
6. Criterion for Success An average gain of one month in grade equivalnet Units for each month in the program.		If a comparison group is used, please identify participants. N.A.

CE-4065

Name of District	(Check One or Both)	
Wayne-Westland Community Schools	[X] Title I [X] Section 3	
Name of Building	**Component**	**Objective No.**
P.D. Graham	Reading	2

A. DESCRIPTION OF PROGRAM AND EVALUATION

PERFORMANCE OBJECTIVE NUMBER # 2	DESCRIPTION OF PLANNED PROGRAM COMPONENT	EVALUATION DESIGN
1. Individual(s) Section 3 Students 9 through 11 year olds	Students will receive reading instruction daily in the regular classroom's skill centers using the Wisconsin Read management system. Individulaized (tutorial and small group) instruction will be provided by the classroom teacher with the assistance of an aide.	Data Collection Schedule The Wisconsin tests will be administered in September and through out the year as needed. The Metropolitan Achievement test will be administered in the fall and spring.
2. Behavior Knowledge Study Skills		
3. Object of Behavior Reading		Data Analysis The average gain per month in grade equivalent units will be calculated and a comparison made of the Wisconsin results and the Metropolitan results.
4. Time October through May 1972-73 School Year		
5. Measurement Pre and Post tests Wisconsin Read Program Log record of achievement on McBee cards		
6. Criterion for Success An average gain of one month in grade equivalent units for each month in the program.		If a comparison group is used, please identify participants. N.A.

CE-4065

Name of District	(Check One or Both)	
Wayne-Westland Community Schools		☒ Title I ☒ Section 3
Name of Building	**Component**	**Objective No.**
P.D. Graham	Reading	3

A. DESCRIPTION OF PROGRAM AND EVALUATION

PERFORMANCE OBJECTIVE NUMBER # 3	DESCRIPTION OF PLANNED PROGRAM COMPONENT	EVALUATION DESIGN
1. Individual(s) Section 3 Students	Students will receive reading instruction daily in the regular classroom. Individualized (tutorial and small group) instruction will be provided by the classroom teacher with the assistance of an aide.	Data Collection Schedule The Metropolitan Achievement test will be administered in the fall and spring (Oct. and May)
2. Behavior Comprehension		
3. Object of Behavior Reading		Data Analysis The average gain in standard score units will be calculated.
4. Time October through May 1972-73 School Year		
5. Measurement Metropolitan Achievement Test		
6. Criterion for Success An average gain of one month in grade equivalent units for each month in the program.		If a comparison group is used, please identify participants. N.A.

Name of District	(Check One or Both)	
Wayne-Westland Community Schools	☒ Title I ☒ Section 3	
Name of Building	**Component**	**Objective No.**
P.D. Graham	Mathematics	4

A. DESCRIPTION OF PROGRAM AND EVALUATION

PERFORMANCE OBJECTIVE NUMBER # 4	DESCRIPTION OF PLANNED PROGRAM COMPONENT	EVALUATION DESIGN
1. Individual(s) Section 3 Students	Students will receive mathematics instruction daily in the regular classroom's skill centers. Individualized (tutorial and small group) instruction will be provided by the classroom teacher with the assistance of an aide. The mathematics materials will feature the following: Holt-Rinehart work sheets Continuous Progress lab materials Imperial Math. Program AAAS materials Application Experiences Games	Data Collection Schedule The Metropolitan Achievement test will be given to Section 3 students in the fall and the spring (Oct. and May). Data Analysis The average gain per month in grade equivalent units will be calculated.
2. Behavior Cognitive Knowledge		
3. Object of Behavior Mathematics		
4. Time October through May 1972-73 School Year		
5. Measurement Holt-Rinehart and Continuous Progress Lab tests will be used for pre and post measurement Students will record achievement in logs.		
6. Criterion for Success An average gain of one month in grade equivalent units for each month in the program		If a comparison group is used, please identify participants. N.A.

E-4065

Name of District	(Check One or Both)	
Wayne-Westland Community Schools	☒ Title I ☒ Section 3	
Name of Building	**Component**	**Objective No.**
P.D. Graham	Student Attitude	5

A. DESCRIPTION OF PROGRAM AND EVALUATION

PERFORMANCE OBJECTIVE NUMBER # 5	DESCRIPTION OF PLANNED PROGRAM COMPONENT	EVALUATION DESIGN
1. Individual(s) Section 3 Students	The Section 3 students will receive information weekly to record achievement in their reading and math logs and receive personalized attention from the teacher, para-professional and peers (pupil teaming). Voluntary aides will also provide personalized assistance.	Data Collection Schedule The school sentiment index will be given in May, 1973.
2. Behavior		
3. Object of Behavior School		Data Analysis The percent of students responding positively to eighty percent of the inventory items will be calculated. An analysis of variance will be used to compare the scores of the sentiment index given in May, 1972.
4. Time October through May 1972-73 School Year		
5. Measurement School Sentiment Index		
6. Criterion for Success Eighty percent of the students will respond positively to eighty percent of the inventory items		If a comparison group is used, please identify participants. Students in grades K-6 in traditional school.

CE-4065

Name of District	(Check One or Both)	
Wayne-Westland Community Schools		☒ Title I ☒ Section 3
Name of Building P.D. Graham	**Component** Reading	**Objective No.** 1A & 1B

A. DESCRIPTION OF PROGRAM AND EVALUATION (Continued)

PROCESS PERFORMANCE OBJECTIVE NUMBER # 1A & 2A	PROCESS PERFORMANCE OBJECTIVE NUMBER # 1B	EVALUATION DESIGN
1. Individual(s) Kindergarten, Primary and Intermediate teachers	1. Individual(s) Aides	Data Collection Schedule The pre and post tests, record keeping (logs) and Matrix will be up-dated each week.
2. Behavior Application	2. Behavior Application	
3. Object of Behavior Wisconsin Read Program	3. Object of Behavior Assistance with reinforcement of word attack and study skills.	
4. Time September through May 1972-73 School Year	4. Time September through May 1972-73 School Year.	Data Analysis The average number of hours of review and work with the Wisconsin Read program will be calculated.
5. Measurement McBee card and W.W.C.S.D. Matrix will be up-dated each week. Student logs will be up-dated each day.	5. Measurement Aides will be able to assist by: - Retrieving materials - Setting up skill centers - Reinforcing instruction - Up-dating record keeping systems.	
6. Criterion for Success of Implementation Tutorial and/or small group individualized instruction will occur in at least one class period per day.	6. Criterion for Success of Implementation Two or more certified teachers agree that aides are performing satisfactory.	

E-4065

Name of District	(Check One or Both)	
Wayne-Westland Community Schools		☒ Title I ☒ Section 3
Name of Building P.D. Graham	**Component** Reading & Mathematics	**Objective No.** 1A,2A&4A

A. DESCRIPTION OF PROGRAM AND EVALUATION (Continued)

PROCESS PERFORMANCE OBJECTIVE NUMBER # 1A & 2A	PROCESS PERFORMANCE OBJECTIVE NUMBER # 4A	EVALUATION DESIGN
1. Individual(s) Section 3 Coordinator	1. Individual(s) Section 3 Coordinator	Data Collection Schedule The pre and post tests, record keeping of student logs and matrix will be up-dated each week.
2. Behavior Application and In-Service	2. Behavior Application and In-Service	
3. Object of Behavior Wisconsin Read Program	3. Object of Behavior Continuous Progress Labs., Imperial Tapes, Holt-Rinehart, AAAS Parts A-B-C	
4. Time June, 1972 through June, 1973	4. Time September through June, 1973	Data Analysis The average number of hours of review and in-service required for the Wisconsin Read management system will be calculated.
5. Measurement In-Service for certified staff and aides. August 28, 1972	5. Measurement In-Service for certified staff and aides	
6. Criterion for Success of Implementation Tutorial and/or small group individualized instruction will occur in at least one class period daily.	6. Criterion for Success of Implementation Tutorial and/or small group Individualized instruction will occur in at least one class period daily.	

CE 406

Name of District	Wayne-Westland Community Schools	(Check One or Both)	☒ Title I ☒ Section 3
Name of Building	P.D. Graham	Component: Mathematics	Objective No. 4A

A. DESCRIPTION OF PROGRAM AND EVALUATION (Continued)

PROCESS PERFORMANCE OBJECTIVE NUMBER # 4A	PROCESS PERFORMANCE OBJECTIVE NUMBER # _____	EVALUATION DESIGN
1. Individual(s) Section 3 Coordinator Kindergarten, Primary, and Intermediate teachers.	1. Individual(s) Aides	Data Collection Schedule The pre and post tests, record keeping (logs) and Matrix will be up-dated each week.
2. Behavior Application and In-Service	2. Behavior Application	
3. Object of Behavior Skill centers in Mathematics	3. Object of Behavior Assistance with skill centers in Mathematics	
4. Time June, 1972 through June, 1973	4. Time September through May, 1972-73 School Year	Data Analysis The average number of hours of review and work with the following Math. materials will be calculated: Holt-Rinehart Continuous Progress Labs Imperial Tapes AAAS Parts A, B, & C
5. Measurement Student logs and record keeping will be up-dated each week.	5. Measurement Aides will be able to assist by: - Retrieving materials - Setting up skill centers - Reinforcing instruction - Up-dating record keeping systems	
6. Criterion for Success of Implementation Tutorial and/or small group individualized instruction will occu in at least one class period daily.	6. Criterion for Success of Implementation	

Attachment VI

ACCOUNTABILITY MODEL REPORT

to

P.D. Graham Instructional Improvement Committee

and

Wayne-Westland Community Schools
Curriculum Department

June 1972

Submitted by,

Muriel VanPatten
Principal

Teachers Participating:

Barbara Mettetal, Gordon Gibson	Intermediate Unit (Tiger Stadium)
Donna Carden, Marilyn Russ, Mary Wenners	Primary Unit (Lake Superior)

I. INTRODUCTION

The following document represents the work of five teachers and principal in implementing the Accountability Model. The five teachers represent two units: one primary and one intermediate. The primary unit focused their concentration on program evaluation at the second grade level of objectives and the progress evaluation of their third year students. The intermediate unit focused their concentration on program evaluation at the fourth grade level of objectives and the progress evaluation of their fifth year students. Each unit reported on approximately thirty students in reading (word analysis and comprehension) and mathematics (computation and concepts).

A. Tasks

1. To record the cognitive achievement of each student in their group, based on the objectives in reading and mathematics developed by Wayne-Westland Community Schools, on the state matrix report. To also record the number and percent of the group attaining 80% mastery of each objective.

   The following guidelines were established for matrix reporting:

   a. List students alphabetically, surname first and assign a numeral for each student.
   b. 80% Achievement equals mastery
   c. Use dates to indicate mastery
      11/71 - November Metropolitan pre-test
      5/72 - May Metropolitan post-test
      Date of internal unit records
      6/72 date if two teachers can verify records or recall, and reach the same conclusion
   d. Give the total number and percent attaining mastery of grade level objectives
   e. Record objectives mastery for students that are less than 60% at grade level on "below grade level" matrix forms
   f. Consider recording objective mastery for students that are 80% or more at grade level on above grade level matrix forms

2. To identify the reading and mathematics objectives that were weakest in mastery.

3. To identify needs of each unit to include:

   a. Objectives needed to be taught for low achievers mastery

b. Unit delivery system alternatives for low achievers

c c. Unit teacher needs, i.e. materials and training

4. To identify unit priorities for delivery system modification or changes.

5. To identify management system for group and individual record keeping based on pre- and post-test evaluation.

6. Recommendations for the 1972-73 school year.

The following areas were identified and discussed as unit alternatives for modification or change in the delivery of program in the cognitive domain for low achieving students:

Teaching-Learning Stratigies:
- Directed teaching, practice (drill) and test (stimulus-response)
- Application and Gaming (chaining, verbal association, multiple-discrimination, concept learning, principle learning and problem solving)
- Incidental teaching (taking advantage of the routine and the unexpected occurrence)

Grouping arrangements:
- Independent study
- Small group (15 or less)
- Tutorial:
  - Teacher
  - Para-professional
  - Voluntary aide
  - Cross-age tutoring
    - within building
    - Jr. H.S. mini-teachers

Software and printed materials
- Multi Media (AV)
- Multi-texted

Summary of units process following the completion of the Matrix reports.

PRIMARY NEEDS (Objectives)		INTERMEDIATE NEEDS (Objectives)	
Mathematics	Reading	Mathematics	Reading
SETS PLACE VALUE and NUMBER SEQUENCE	READING comprehension reading riddles paragraph comprehension WORD ANALYSIS final blends silent consonants	ESTIMATION DIVISION FACTIONS DECIMALS	GRAMMAR MAIN THOUGHT PHONICS

DELIVERY SYSTEMS
(Assessment)

1. Need to utilize the services of the reading teacher and mathematics coordinator to assist in identifying appropriate materials.

2. Need to learn to write objectives to modify, change, or recreate objectives existing in district's discipline manuals and in programmed materials.

3. Need to teach to unit objectives as clarified in I.G.E.

4. Need to emphasize tutorial experiences using Para-professionals, Voluntary aides, and Cross-age tutoring.

5. Implement Wisconsin Read management system.

6. Need district to develop management system in Mathematics.

7. Need to develop group and individual record keeping systems.

8. Need to balance students experience in skill centers that emphasize directed teaching techniques with application and gaming techniques.

9. Need to pre-test in early September using Wisconsin Read pre-tests in word attack skills and districts pre-tests in comprehension, mathematics computation and concepts.

10. Need to provide techniques for students to get more immediate feedback in their progress (student logs).

11. Coding system for the objectives need to be perfectly matched in the discipline manual and on the matrix.

Recommendations:

It is anticipated that based on the experience of the two units we will design a relevant training model for the total staff to become better qualified to teach and test objectives, identify needed changes in unit delivery systems, culminating with unit recommendations to our building Instructional Improvement Committee and our Central Office.

Recommended Time-Line including tasks and projected dates of completion

Task	Date
1. Each teacher will demonstrate their skill in writing a six point objective as defined by the State, with 100% accuracy as determined by the State's in-service packet. Unit Leaders: Training - August 29, 1972 Unit Teachers: Training in a staff meeting in September, 1972	October, 1972
2. Each unit will develop unit process objectives and select unit objectives for mathematics and reading content taught during the year.	Mid-October, 1972 First unit
3. Each unit will implement a student group matrix and an individual student profile for record keeping in reading and mathematics. The Wisconsin word attack and study pre-tests and the WWCS's survey tests in communication, mathematics computation and concepts will be given in September.	October, 1972
4. Each unit will record Metropolitan post-test mastery levels on the group matrix report. a. Number and percent of students in the grade level group achieving mastery of the objective.	June

Task	Date
b. Number and percent of students on above or below grade level groups achieving mastery of the objectives. c. Month for month growth as indicated by Standardized test measurement and/or by Matrix report. If matrix report information is used, the requirement will be that two or more certified staff have reached the same conclusion based on their internal records and/or observation.	
5. Each unit will submit a report to include a set of unit process objectives for 1973-74. The report will include the following outline: a. Status of 1972-73 Goals b. Status of 1972-73 Unit Process Objectives c. 1972-73 Needs Assessment related to: 1) Goals 2) Unit Process Objectives 3) Objectives (Matrix report) d. 1972-73 Delivery System Analysis related to: 1) Goals 2) Unit Process Objectives 3. 3) Objectives (Matrix report) e. Evaluation and testing f. Recommendations: 1) Action for low achievers 2) Material needs 3) Teacher training needs 4) Unit goals and process objectives for the 1973-74 School Year.	June, 1973