DOCUMENT RESUME

ED 050 193 UD 011 478

TITLE	Motivation Center.
INSTITUTION	Youngstown Public Schools.
PUB DATE	70
NOTE	73p.
EDRS PRICE	EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS	*Disadvantaged Youth, Experimental Programs, *Individualized Instruction, *Motivation Techniques, *Self Concept, Student Motivation
IDENTIFIERS	Ohio, Youngstown Public Schools

ABSTRACT

This report of the Youngstown (Ohio) Public Schools concerns the operation of their Motivation Center program, funded by Title I of ESEA. The purpose of the Motivation Center is to establish a working and learning environment in which the emphasis will be on building and improving the pupil's self-image. It is specifically designed to provide incentives for the child whose functional level is considerably below his potential. The approach to learning is structured, flexible, and innovative, without the usual pressures and conformities expected in the average classroom. The plan provides for individualized instruction and a prescriptive program for each child. The bulk of this report is a description of radical curriculum and teaching strategies in reading, social studies, mathematics, and science. Since this is basically a program design, there is no discussion of program implementation. (Several pages of this reproduced document will be totally illegible.) (Author/JW)

MOTIVATION CENTER

Funded Under Title I
of the
Elementary & Secondary
Education Act-1965

Motivation Centers

The Public Schools
1025 West Raven Ave.
Youngstown, Ohio 44502

TABLE OF CONTENTS

COMMUNICATIONS

SOCIAL STUDIES

MATHEMATICS

SCIENCE

INTRODUCTION

Education of children in school is changing, must change to meet the present and future needs of our society. What those changes will be depends largely on the wisdom and perceptiveness of those making the changes. We have only to read current magazine articles* (a) to know that some segment or segments of society are demanding and will get changes in classroom procedure and (b) to realize that suggested procedures differ greatly and are being advocated with widely varying goals and depths of understanding of the basic purposes of education. There is some evidence that reformers now are recognizing the tremendous complexity of the process of education and are realizing that simple answers are no solution.

Now as never before educators themselves must change from the anachronistic traditional educational procedures of the past. We must demonstrate the kind of teaching-learning situation that can be defended in light of new understandings about children and why they learn and what it is they need to learn to become effective citizens in tomorrow's world, which will differ so drastically from that of our childhood and youth.

Because of the tremendous rate of progress, the facts and information of today will be largely outdated before most elementary school children are established in society. Therefore we must conclude that facts and information are of almost no value in and of themselves. They are only a means to an end--content that is used in the process of learning to discover, to think, to make choices and decisions in the real world of the child.

Learning facts and information defines ways by which a child can come to better understand himself and others and all the important aspects of the world in which he lives. But he must at the same time learn equally well that facts and information are constantly expanding and changing. The process of understanding requires adding and discarding new facts and information continuously throughout life: "This is the way it seems now, but I must look again tomorrow, next month, next year to evaluate."

All this implies radical changes in the classroom. The focus is on the process of learning how to learn and how to decide what to learn; learning how to evaluate one's own competencies and identify one's own needs; learning to respect oneself and have confidence in one's own ability to be self-directing and effective in adapting to the ever-changing life he will be living.

School people must throw their unified influence toward a kind of education which is designed to make each individual a self-respecting, self-confident, competent person who stays knowledgeable and who respects his fellowmen. We must humanize learning and make it far more effective for the essential purposes for which it is needed.

Diagnostic teaching seems to be a first essential step toward implementing the above goals. These are the purposes for which it was devised. We believe teachers are eminently able to carry it out.

We have borrowed the above introduction from Dorris M. Lee's pamphlet, "Diagnostic Teaching," published by the NEA, since it states so well the rationale of the Motivation Center program.

*As illustrations, see (a) Charles E. Silberman's "Technology Is Knocking at the Schoolhouse Door." Fortune. August 1966. p. 120; (b) Patrick Suppes' "Plug-In Instruction." Saturday Review. July 23, 1966. p. 25; (c) Don D. Bushnell's "For Each Student a Teacher." Saturday Review. July 23, 1966. p. 31.

(A)
AN OVERVIEW

The purpose of the Motivation Center is to establish a unique working and learning environment in which the emphasis will be on building and improving the pupil's self-image. It is specifically designed to provide the incentive for the child whose functional level is considerably below his potential.

This approach to learning is structured, flexible and innovative, without the usual pressures and conformities expected in the average classroom. In the Motivation Center each child may experience success and begin to see himself as a worthy individual where the smallest improvement in his work should be recognized with judicious praise.

The plan of instruction will provide individualized and a prescriptive program for each child. This developing behavioral program from individualized to group responsibility should lead to the eventual return on a gradual basis to the home base classroom.

(B)
PROGRAM GOALS

1. To facilitate positive behavioral and attitudinal change in each child who has known failure in varying degrees.

2. To bring about improvement in the following areas:
   a. Social growth (in relation to self and others),
   b. Emotional growth (toward acceptable ways of resolving inner conflict),
   c. Spiritual growth (on a moral and spiritual basis),
   d. Mental growth (developing effective ways of thinking and learning),
   e. Physical growth.

3. To develop individually prescribed programs for each child to facilitate this change.

REQUIREMENTS

In the Motivation Center, teacher and pupil roles have changed, as follows

A. Teacher's responsibility
   1. Establish a stimulating physical environment
   2. Prudent selection and preparation of material
   3. Democratic involvement of each child in his classroom experiences
   4. The use of content which meets the individual needs of the children
   5. The development of effective evaluative techniques
   6. Provide a non-judgmental attitude for learning.

B. Student's responsibilities
   1. He becomes liable for his own learning.

DISCIPLINE

A program that is managed with the concerns of the students in mind should eliminate the majority of disciplinary problems. However, if behavioral problems arise, use the Child Study approach. With the assistance of the psychological team, diagnose the child's needs (psychological, emotional, social and academic) and determine a positive approach to improve the situation. No physical punishment (paddling, etc.) or any other negative means of punishment will ever be used in a Motivation Center under any circumstances.

The following are quotes which are concerns of youngsters in the classroom and illustrate the efficacy of the Child Study approach to behavioral problems:

1. If we get into trouble, you try to understand us if you can. When you understand, you will help us with our problems.

2. Some of the ways you have helped me, I can't describe. You have helped me with my personal life. Coming right down to it, you are a nice teacher. You are pretty hard sometimes but you're only thinking of our future. You make me mad sometimes, and I let my temper run away with me, but you have helped me control my temper much better. I am proud to have you for a teacher, although I don't act like it sometimes.

3. You have helped me express my personal problems instead of taking it in my own hands and getting into trouble. If all of my teachers were like you, I wouldn't have any trouble in school.

4. When we are bad and won't pay attention, you talk to us about it.

5. You showed me the importance of acting my age by showing us how silly children looked in the movie when they became angry and acted like little children.

6. Besides just helping us in school work, you have taught me to control my temper. When there is an argument, you help us out of it. (This girl has terrible temper tantrums.)

7. When I was new, you helped me to get to know people by putting me on projects with different children.

8. When we get in trouble, you take time to talk to us.

9. Although I have been in your class a short while, I feel that I can rely on you and that I can come to you when I need help.

MEETING INDIVIDUAL NEEDS OF CHILDREN

The successful teacher knows that only through assessing as well as possible what each child needs will teaching pay its fullest dividends. In order to discover his needs, she may use these aids:

1. Conferences with former teachers
2. Conferences with the principal
3. Test results
4. Cumulative records
5. Individual psychological reports (The Motivation Center project will have its own staff of psychologists)
6. Individual conferences with children
7. Contacts with the visiting teacher
8. Conferences with children and their parents
9. Listening and observing with understanding.

All children learn first and best by direct experience. Vicarious experiences provide opportunities for learning not possible through direct experiences. The Motivation Center children (as do all children) need to have many avenues of learning available, both direct and vicarious.

TIPS FOR TEACHERS AND AIDES

At the beginning of the morning session, the teacher, aides and children plan together the activities and schedule for the day. Each child working at his own pace, hopefully, will come in to the morning session enthusiastic and interested in continuing his own special project. The teacher and aides will have done much preplanning for each and every child in all areas each day.

The teacher should accept <u>anything</u> creative and/or original from the child. Even if the assignment has been done incorrectly in many ways, the teacher should continue to be positive in his thinking by recognizing the meritorious effort on the part of the child in ways that provide incentive for further effort.

Corrective instruction becomes secondary; it is not eliminated. The important learning factor in a Motivation Center is to build on the educational assets of the child--and every child has some. The aides should have the same attitude and approach as the teacher.

The teacher will arrange the daily schedule so that each child has the opportunity to work on a one-to-one basis with an adult. This develops a feeling of involvement for all.

In summary, we firmly believe that each child is a highly complex organism, a worthy human being possessed of infinite potential. We believe each human being has dignity, worth and desires success. Our goal is to provide each child the motivation and essential skills for successful accomplishment of his potential.

We believe it is our duty and educational obligation to continually provide for the training and retraining of our staff as to methods and procedures and to seek the best in materials and equipment currently available so that we are better prepared to accomplish our goals.

GUIDELINES FOR INSTRUCTORS

OPERATIONAL

1. One of the first operational tasks you have as an instructor is to see that your center is made ready. Books and equipment properly cared for and the physical facilities properly arranged and decorated. An attractive center promotes learning.

2. Lesson plans are to be maintained daily and will be available to observers. The plans must be in detail to show objectives of each session, material and equipment utilized and supportive work undertaken by the aide.

3. On the last Thursday of each pay period it will be your responsibility to report the number of hours your aides have worked. Your time sheet should be properly filed in our office on the last day of the pay period. School mail should be used for this purpose.

4. Failure to report time worked by your aide will result in delay in payment.

5. Whenever it is necessary for you or your aide to be absent from work, you must call and inform the director. This must be done between 7-7:30 AM of the day you are to be absent.

6. In the event of teacher absence, a substitute will be provided. However, in the event of absence of the aide, no substitute aides are provided.

7. No employee is to leave the building during school hours. In cases of emergency, approval from the office and building principal may be secured.

8. Hours of work for our staff corresponds with those established by the Board of Education for all certificated personnel:

   a. Arrival: 8:15 AM
   b. Lunch Hour: 12:00 to 1:00 PM
   c. Dismissal: 3:45 PM

   Each Motivation Center teacher will attend the staff meetings in the building where he is working. Each Motivation Center teacher will assume lunchroom responsibilities as assigned by the building principal.

9. Students are not to be left for any extended period of time without supervision by certificated personnel.

10. All staff personnel will abide by the regulations as established by the Board of Education and the principals of their buildings.

11. Instructors are responsible for all material and supplies delivered to their centers. It is your responsibility to lock and secure all cabinets, desks and centers.

12. All AV equipment shall be properly maintained and safely stored daily. Machines that are out of operational order must be reported to the central office immediately.

13. It is the duty of each instructor to assign to the aide regular duties of housekeeping, filing and whatever additional duties are necessary to create a workable center.

GUIDELINES FOR INSTRUCTORS

14. Teacher's personality and attitudes have a powerful role in the motivation of his or her students.

15. The key to a successful program is adequate planning. Generally, the period between 8:15 AM and 9:00 AM is to be devoted to planning. This should be done in collaboration with the aide to facilitate the supportive role carried on by the aide. This includes both the supportive work material, equipment as well as the purpose.

16. All lessons should be planned with focus on the student, his needs and concerns.

17. Children should share in the planning, in the purposes and in the evaluation of their own learning.

18. Discuss with your aides their observations on the responsiveness and behavior of each student as you prepare your daily anecdotal records of each child.

SUMMARY OF TESTING PROGRAM

A comprehensive testing program (psychometric, diagnostic, reading, achievement, personality) by an expert team of educational psychologists will be provided for each child as needed for the initial screening and academic placement.

Classroom observation and consultation on learning and behavioral problems will be provided the Motivation Center teacher by a psychological team.

A reading specialist from the psychological staff will assist the teacher in diagnosis and consult with the teacher on the needs of the children.

A psychological team will assist in parent-teacher conferences when needed or desired.

A psychological team will provide continuing in-service training for Motivation Center teachers.

COMMUNICATION

Philosophy

Teachers in the Motivation Center should view their tasks in the light of the idea that communication is a continuum in which understandings grow with children throughout their school life. "Learnings which are open-ended are far better suited to times like ours. Teaching becomes obsolescent and derelict when it fails to take the realities of social and cultural change into consideration."[1]

This course of study in the skills of communication is based upon the philosophy that:

1. Children are living, growing individuals;
2. Children differ in attitudes, abilities and skills;
3. Children need help in acquiring the tools of oral and written expression which will best aid them in the development of well-rounded personalities;
4. Children grow best in a democratic atmosphere where privileges are balanced by the acceptance of responsibilities;
5. Children should be encouraged to appreciate the American heritage of language and literature; and
6. Children should be helped to appreciate and understand the language and literature of other races and cultures.

This program should be built on a proposition that a well-balanced, dynamic communication's program is one which not only promotes individual efficiency, contributes to personality development, build aesthetic appreciations, develops social competence and promotes character growth, but is also one which contributes to more abundant living by giving the child broader, richer experiences.

These experiences should be beyond the textbook and his immediate environment so that he will have opportunity to develop into a worthwhile, contributing citizen.

[1] Lavone Zirbes, "What We Should Know About Learning," Readings from Childhood Education, (Association for Childhood Education International), pp. 182.

Experience has proved that children with a wide range of concerns, competencies, and enthusiasms and with widely differing self-concepts, learning styles, goals, and purposes do not learn the same thing at the same time in the same way. This principle is generally accepted but not widely practiced. Failure to do so is rationalized by the amount of material to be covered and the number of children in a class.

Diagnostic teaching is one way to solve this problem. Teachers organize a classroom and the learning situation so that within reasonable limits each child can work at what are his next steps in the areas of his greatest concerns and in the ways which are most effective for him. It is not a panacea, but it does provide a way of working with a classroom of children using procedures based on what we know about children and how they learn.

Research studies in learning show that children learn what has personal meaning for each in direct proportion to how effective they feel as learners. They learn what they think they can learn, what they see as valuable to them, and what they see a purpose for. Effective learning is possible only as children can relate the content and see it as appropriate to real life situations.

Purpose is an essential key to learning and includes a number of the other factors. If a child sees purpose in something, it means that he has related it to previous knowledge that is meaningful and that he also sees it as valuable to him in his world. The purpose that he sees for the learning plus confidence in his ability to learn almost ensure achievement for the learner.

To the extent the purposes of the school and the teacher are similar or related to those with which the child can identify, the pace of learning increases. On the other hand, children's learning will be inhibited if the purposes of the teacher and the school are rigid and formalized, related far more to oft-times questionable means than to defensible goals.

Teachers must take themselves off stage, must stop making assignments, and must stop correcting papers. This may sound like heresy, but it is being done in an increasing number of classrooms and children are learning more and developing faster than ever before. It can be done where there are certain beliefs about children's learnings:

All children <u>can</u> learn and <u>want</u> to learn.

A child can learn only at his growing edge. In other words, the teacher starts with each child where he is; the child builds on his present understanding. All real learning produces growth beyond present understanding.

All children can recognize and develop the ability to identify their real purposes for learning.

All children can be self-directing in their learning.

Children can learn to evaluate their own learnings and identify their own needs.

If all children can learn and want to learn, why do some children not learn? The answer is easy. Children do learn what they <u>want</u> to learn. The problem is that adults want them to learn what adults <u>direct</u> them to learn. And no one has either enough knowledge about children or the infinite wisdom to make such decisions for us.

Since the pattern of diagnostic teaching differs from that of traditional teaching, its organization must differ also. Flexibility will be the keynote. Furniture will be arranged in many different ways, according to the immediate purposes. Schedules will utilize large blocks of time and provide for further changes or modifications as the needs demand.

There will be times when the teacher and the total group will be working together. At other times, small groups may be working by themselves or individuals will be working alone. Perhaps most often there will be a combination of small group and individual activities with the teacher working first with one and then another.

The room will be a busy, active learning laboratory with children moving purposefully about the room, carrying out their explorations of the resources, conversing, seeking the ideas of their peers, discussing what they find, and coming to increased understandings. They will often be reading or writing, as individuals or groups, to gather or synthesize information and understandings they need. It will not be a pin-drop quiet place or an all-in-straight-rows orderly one. But it will be alive with children on their way to becoming tomorrow's capable and concerned citizens.

The teacher's role will be far different in this classroom than in the traditional one. This will require change, and teachers can change. The eagerness with which many are seeking a new and better way; the number who tried diagnostic teaching, greatly modifying their way of working with children; and the consistent response that having once worked this way they never are able to go back to the old way; all bode well for wide and successful changes.

This bulletin has expressed the point of view that the most effective learning takes place when teachers respect the learners as individuals, have faith that all want to learn and can learn, and give them the responsibility for identifying their own needs and taking the initiative for meeting them. Children will need guidance and support in doing this. The younger the child and the less experience he has had with this way of working, the greater will be the need for guidance and support. However, this must always be carried out in such a way that the child is continuously more able to be independent and self-directing in his learning.

Because of the wide range and kinds of differences among individuals, teachers must not, nor can they afford to, waste their time or that of learners by giving blanket assignments. The needs of the present and future require that citizens be capable of and experienced in learning on their own rather than merely filled with facts and information. Citizens must have the skills and enthusiasms for keeping up with a rapidly changing world, for taking their share of responsibility for effectively living in it, and for modifying it so that it becomes a better place to live. All of this demands a confidence in self, a realistic self-appraisal, a creative approach to life, and a dedicated responsibility to mankind.[1]

These excerpts from Dorris M. Lee's Diagnostic Teaching provide further insights into the philosophy and intent of the Motivation Center program.

[1] Dorris M. Lee, Diagnostic Teaching, 1966.

Objectives

Objectives of communication may be summarized as follows:

1. To enable each child to develop proficiency in the expressive and receptive skills, such as reading, writing, talking, listening, observing, etc.

2. To enable each child to develop a genuine concern for and love of the fine arts, such as literature, art, drama, music, etc.

Listening

Much of our information and enjoyment comes to us through our ears: music, dramatic presentation and the contemporary sounds that belong in our daily experiences. The Motivation Center recognizes that for many of our children listening will be their main source of learning. Therefore, certain skills of listening should be taught and developed.

The goals of listening are:

1. To learn to listen for enjoyment, to gather information, to follow directions;

2. To learn to listen selectively and critically;

3. To learn to listen attentively and courteously;

4. To learn to listen and recognize the central ideas; and

5. To listen and be able to recall and evaluate.

Since "we listen approximately three times as much as we read, five times as much as we write, and one-half times as much as we speak," the teacher has a responsibility for providing specific guidance in the development of listening skills.

The listening skills of the Motivation Center may be summarized:

1. Listening to and following directions

2. Listening to and taking notes

3. Listening to facts and information

4. Listening for sequence

5. Listening courteously

6. Listening to tapes, records, radio and television programs

7. Listening so as to identify with speakers

8. Listening to make helpful contributions to conversation

9. Listening to detect likenesses and differences of sound

Listening tips:

1. Tie in listening improvement with everyday learning;

2. Make pupils "sound conscious;"

3. Analyze pupils' listening habits;

4. Make certain that pupils know why they are to listen, what they are to listen for and how they are to listen;

5. Teach listening directly and indirectly; and

6. Develop criteria for good listening habits (attention, quiet, courtesy).

Speaking

Oral communication is the basis of language power. It begins with the newborn infant crying lustily to satisfy its needs and develops rapidly so that upon school entrance age the average child has oral communication skills with which to convey thoughts and feelings in approximately 2500 words. Freedom, naturalness and spontaneity should not be sacrificed for perfection of techniques. The student's power in communication skills will develop through meaningful experiences, both group and individual, rather than through unrelated drill.

The characteristics of effective speaking may be summarized:

1. Use a pleasant voice;

2. Speak loudly;

3. Aim for clear enunciation and pronunciation endings of words--do not run words together;

4. Stay on the subject;

5. Use sentences;

6. Stand erectly; and

7. Await one's turn, allowing all to share in discussion.

The development of oral expression is one of the basic goals of the Motivation Center and many opportunities should be provided for comfortable talk.

A Brief Thought About Reading

"The ultimate test of reading in school--by whatever name you call it, whether English, history or science--is the reading the student does on his own initiative after he has left school . . . The modern world calls for persistent learning as the only means of survival. To deny youth the personal adjustment which comes from easy and wide use of books is to leave him unprepared for the life of tomorrow."[2]

[2] Ems, Willard E., "Course of Study for Language Arts: Grades 1-6," 1966.

We believe that teaching children to read and to have a love for reading are two of our most important tasks. The development of a foundation for reading competence should be laid during the elementary school years and reading abilities should continue to be enhanced throughout a lifetime. Reading is vital to all areas of our Motivation Center's curriculum.

The reading objectives may be summarized:

1. To enable each child to learn to read to the best of his ability;

2. To enable each child to develop reading habits and skills at his own learning rate;

3. To enable each child to be taught by methods best suited to his particular needs and ability;

4. To enable each child to become increasingly aware of the purposes for which he reads and his own progress;

5. To enable each child to become more independent in his use of reading materials; and

6. To enable each child to participate in a balanced and varied program in reading activities.

Contents of a Reading Program

The reading program should be developmental and should:

1. Develop and give opportunities for the use of phonics (auditory discrimination, visual-auditory discrimination, visual discrimination);

2. Develop ability to use structural analysis;

3. Develop ability to use contectual clues; and

4. Develop dictionary skills.

The reading program should develop the following comprehension skills:

1. Interpreting the main idea;

2. Recognizing emotional reactions and motives of story characters (making inferences, interpreting ideas implied but not directly stated);

3. Comprehending phrase and sentence meaning;

4. Forming and reacting to sensory images;

5. Anticipating outcomes;

6. Making judgments and drawing conclusions;

7. Generalizing;

8. Perceiving relationships; and

9. Strengthening memory.

To provide the best and widest reading experience for the Motivation Center students the Language Experience Approach and a program of Individualized Reading will be interwoven.

A comprehensive explanation of both programs is given in the following pages:

The Language-Experience Approach

"The language-experience approach integrates the various facets of language-arts instruction in the curriculum.

"The importance of each child's own oral-language background is recognized and utilized . . . until each child eventually conceptualizes:

what I can think about, I can talk about

what I can talk about, I can write

what I can write, I can read

I can read what others write for me to read.

"The language-experience approach helps children become increasingly sensitive to their environment . . . by providing them with many experiences they can talk and write about, such as . . . opportunities to hear and read good literature and to participate in group discussions . . as well as to author their own books that can be shared with others.

"Language development is assured in a program that encourages self-expression in many media throughout the school day.

"Such varied experiences in self-expression promote a confidence in language usage . . . which, in turn, creates a desire to rework and refine one's own language.

"The language-experience approach provides non-English-speaking children with many opportunities to experience success at school."[1]

Goals of a Writing-Reading Approach

"Teachers using a language-experience approach which includes writing as a major activity in teaching word recognition, have goals which are not too different from those of other approaches to reading instruction. The major goal is to include more and more children in a successful reading experience without destroying their language personality and their interest in self-expression with forms of language, especially talking and writing. These teachers believe that the way a

[1]Roach VanAllen and Claryce Allen, Language Experiences in Reading, Level III, Encyclopedia Britannica Press, 1967.

child feels about himself as a person is as important in reading achievement as is any method or material which might be selected. In planning to improve attitude along with other aspects of a balanced reading program, there is a plan for developing a basic sight vocabulary, for instruction in the phonetic elements of English, for selecting materials of instruction, for motivation for reading, for classroom organization, and for pupil evaluation."[2]

"The goal of an integrated language-arts program is to translate learning into meaningful behavior.

"The goals of a broad language-arts experience cannot be broken up into reading goals, writing goals, speaking goals. Such fragmentation requires the young child to perform the most difficult task of the scholar--to integrate learning into meaningful behavior. To take reading out of its rightful place in the complete language program is to ask children to do what is impossible for many of them. Further, it requires the teacher to use valuable time to put back together what did not need to be separated in the first place.

"'These language experiences become the major framework within which children learn to read through experience. When conceptualized as a program much bigger than ' the reading period,' the development of these language experiences gives depth of meaning to art and construction activities; it is the vehicle for conveying meanings of social studies emphases, of science experiences, of describing quantitative aspects of the environment; it builds spirit and understanding into singing of songs and playing of games; it places the 'creative thinking process' at the heart of the instructional program.'[3]

Criteria to be used as a guide for planning and selecting methods and materials for a Language-Experience Approach

'Group One: Extending Experiences with Words

1. Sharing experiences--the ability to tell, write, or illustrate something on a purely personal basis.

2. Discussing experiences--the ability to interact with what other people say and write.

3. Listening to stories--the ability to hear what others have to say through books and to relate ideas to one's own experiences.

4. Telling stories--the ability to organize one's thinking so that it can be shared orally or in writing in a clear and interesting manner.

5. Dictating words, sentences, and stories--the ability to choose from all that might be said orally the most important part for someone else to write and read.

6. Writing independently--the ability to record one's own ideas and present them in a form for others to read.

7. Authoring individual books--the ability to organize one's ideas into a sequence, illustrate them, and make them into books.

[2] ris M. Lee and R. V. Allen, Learning to Read Through Experience. Appleton-tury Crofts, 1963.

MATERIALS AND ACTIVITIES FOR LANGUAGE ARTS

LANGUAGE EXPERIENCES IN READING---
Dr. Roach Van Allen and
Claryce Allen

To develop "Language Experience in Reading"---the following types of materials and experiences will be useful:

1. Field trips for simple observation.
2. Demonstrations showing how things work.
3. Films on many topics of interest.
4. Displays assembled by children and teacher.
5. Listening to stories and poems.
6. Talking about real experiences.
7. Associating names of objects with pictures.
8. Listening to recordings.
9. Painting pictures to represent what children see and imagine.
10. Modeling with clay and paper--just for fun or to represent ideas.
11. Playing games--especially ones in which words are repeated.
12. Singing songs and playing singing games.
13. Feeling things, smelling things, tasting things, and observing things.

Activities that the teacher can do with his entire class:

1. Reading stories and poems to children.
2. Children reading their own stories to the class.
3. A child composing something orally about a painting which will be recorded by the teacher and later transcribed by her and attached to the painting.
4. Holding class discussions on some topic of current interest to the group.
5. Taking dictation on the chalkboard and illustrating letter formation, teaching the names of letters small and capital, finding words that are alike, asking for help in spelling the first sounds of words.
6. Finding interests of individuals and interests common to many children, sharing some children's personal experiences each day, providing a place for displays of objects and pictures.
7. Extending experiences through films, filmstrips, walk around the school building and the immediate neighborhood, field trips, and picture sets for telling stories.
8. Introducing games that can be played later by individuals and small groups.
9. Playing rhyming games and singing songs that repeat words and word endings.

Activities that the teacher can do with small groups:

Take dictation for a pupil book.

2. Work with a pupil book to develop attitudes about reading and writing and to introduce and practice skills--developing a basic sight vocabulary, introducing phonetic-analysis skills, beginning structural analysis, using context clues.
3. Let children read from books that include their own contributions.
4. Give special instruction in skills to some children, using material selected by the teacher.
5. Play games to practice skills.

The teacher serves as a resource person for individual projects and independent activities such as the following:

1. Taking dictation from a child who has painted a picture.
2. Helping a child with writing practice.
3. Suggesting ideas for individual books (in addition to the books made from the pupil book).
4. Helping with spelling after a child begins independent writing.
5. Furnishing words for children who are independently reading books of their own choice.
6. Helping children decide what to choose as an independent activity.

Summary of Language Experiences to be developed--
Language Experiences with Words

1. Sharing experiences--the ability to tell, write, or illustrate something on a purely personal basis.
2. Discussing experiences--the ability to interact with what other people say and write.
3. Listening to stories--the ability to hear what others have to say through books and to relate ideas to one's own experiences.
4. Telling stories--the ability to organize one's thinking to that it can be shared orally or in writing in a clear and interesting manner.
5. Dictating words, sentences and stories--the ability to choose from all that might be said orally, the most important part for someone else to read and write.
6. Writing independently--the ability to record one's own ideas and present them in a form for others to read.
7. Authoring individual books--the ability to organize one's ideas into a sequence, illustrate them and make them into books.

Studying the English Language

1. Conceptualizing the relationship of the speaking, writing, and reading--the ability to conceptualize, through extensive practice, that reading is the interpretation of speech that has been written and then must be reconstructed orally or silently.

2. Expanding vocabulary--the ability to expand one's listening, speaking, reading and writing (including spelling) vocabulary.
3. Reading a variety of symbols--the ability to read in one's total environment such things as the clock, calendar, dials, thermometer.
4. Developing awareness of Common Vocabulary--the ability to recognize that our language contains many common words and patterns of expression that must be mastered for sight reading and correct spelling when expressing one's ideas in writing.
5. Improving style and form--the ability to profit from listening to, reading, and studying the style of well-written material.
6. Studying words--the ability to pronounce and understand words and spell them correctly in written activities.

Relating Authors' Ideas to Personal Experiences

1. Reading whole stories and books--the ability to read books for information, pleasure and improvement of reading skills on an individual basis.
2. Using a variety of resources--the ability to find and use many resources in expanding vocabulary, improving oral and written expression and sharing ideas.
3. Comprehending what is read--the ability, through oral and written activities, to gain skill in following directions, understanding words in the context of sentences and paragraphs, reproducing the thought in a passage, reading for detail and reading for general significance.
4. Summarizing--the ability to get main impressions, outstanding ideas, or some details of what has been read or heard.
5. Organizing ideas and information--the ability to use various methods of briefly restating ideas in the order in which they were written or spoken.
6. Integrating and assimilating ideas--the ability to use reading and listening for personal interpretation and elaboration of concepts.
7. Reading critically--the ability to determine the validity and reliability of statements.

INDIVIDUALIZED READING

Individualized reading is an attempt on the part of the teacher to so manage the classroom that each child is learning to read at his own "growing edges."

The teacher consciously safeguards the unique individuality of each child by:

1. Permitting the child to help in planning
2. Permitting the child to work at his own pace;
3. Permitting the child to participate in the selection of reading materials and resources
4. Providing the child with skill instruction according to his needs.

The objectives of this type of program are:

1. More readers who read more extensively with pleasure and purpose;
2. Lowered resistance to reading through providing increased emotional security and satisfaction;
3. Freedom from boredom and elimination of face-saving disinterest in books;
4. Minimal frustration caused by time limits and unfair competition;
5. Increased satisfaction and motivation;
6. Equal opportunity to attain capacity achievement at individual maximum speed;
7. Development of the child's sense of personal responsibility for himself and for others;
8. Growth of the child's sense of personal worth.

Although individualized reading may go by some other name, the fundamental premises are the same. Reading is a matter that is individual to each child. The reading experiences provided in a

classroom should eliminate comparisons with others. Each child's progress should only be compared with his own past performance. The level of the reader or the reading material should be subordinate to the act and enjoyment of reading itself. It is believed that allowing a child some freedom of choice in selection of his reading materials will develop real purpose for reading. Instruction in reading and reading itself then become constantly interwoven.

Children must be prepared for the reading program with much discussion of all its aspects. They must be clear on how to select their book and how to determine that it is appropriate for their educational purposes. They must realize they are not reading just to please teacher--that they are reading to fulfill their own needs, concerns and interests. It is a good thing for the teacher to say that each child must show her the book he has selected. This keeps the teacher informed on what each child is doing. It must be clear that she is there as guide and advisor.

Organizing the classroom for any new procedure will, of course, take time. Perhaps, at first, classroom organization will be more rigid than later on when both teacher and children are adjusted to the program. It is essential, however to develop an organizational pattern for the program with the children. The rules that are mutually established might well be placed upon a chart and hung in the room in a somewhat permanent position.

The rules that are mutually established should encourage some behavioral patterns and inhibit others. The spirit pervading the class should be such that the success of one pupil is gratifying to all, and the failure of one pupil results in a let-down feeling in the others. Each pupil must develop a respect for the purposes, values and actions of every other pupil.

If a child is to behave as an individual and yet respect the rights and comforts of the other members of the class, he must view his behavior as having a place among the behavioral patterns of the other children.

The Personal Reading Inventory, as well as the psychological testing and past school records, will be beneficial in determining the starting point for each child.

Since pupils' motives for reading determine the kind, the difficulty, the amount and what to do with the materials that have been read, it is essential that the teacher learn each pupil's motives. The wise teacher might take an inventory of interests and keep her eyes and ears open throughout each day to note pupil's likes and preferences.

What does the teacher actually do during a reading period? The moving-about method suits some situations. The teacher helps those who indicate a need. Some will ask for too much help; others will never ask at all, and she may have to ask them to read in order to check on them. The teacher may place herself in a corner and have some of the children read excerpts from their book to her. The fact that she may not be able to hear very many during a day's session may present a problem. In the Motivation Center, however, with only 18 children and 2 aides, it is not an insurmountable problem.

It is interesting that most teachers agree that conferences should be held on a voluntary basis. If a child comes unprepared, the teacher must gently, but firmly, send him back. Any alert teacher will follow up a child who does not seem eager to come for his conference.

There are three aspects of reading that a teacher needs to investigate during each conference:

1. The pupil's understanding of and reaction to his chosen piece of material;

2. The pupil's ability to deal with the mechanics of reading;

3. The pupil's ability to read orally (the climactic point of the session).

These aspects are explored best by the teacher's careful use of open-ended questions and by her being an interested and appreciative listener.

The greatest incentive to learning is to know what you are trying to learn and how well you are progressing. For this reason, the children themselves are asked by most teachers to keep records of the number of books and pages read, the time taken to read (so he gets an idea of his reading speed), his evaluation of the book (including the title, author, his reaction to it and reading difficulty), and a list of new words and ideas learned. This kind of record keeping is important if the child is to participate in optimum reading experiences. A time near the end of the reading period should be provided for this activity, and the teacher should see that all children work on their records. The teacher observes these records periodically. A wall chart indicating number and types of books read by each child can become a powerful incentive to more and better reading.

Acquiring reading materials is not nearly the problem which it might appear to be. It is generally thought that about 100 books

should be in the classroom at all times, with at least three at about the reading level of each child. The books must be largely easy. There are always enough for the good readers. It is the poor readers who do not have enough books. It is desirable to have a constant supply of new books. They may be secured in the school and public libraries, second-hand book stores and even from the children themselves. The PTA often is quite willing to help. The teacher may arrange a class excursion to the library. The teacher must become as familiar as possible with children's literature so that she may select books in many different areas of interest and on many reading levels. The place for the books must be convenient and readily accessible to all.

The planning of the activity which will absorb the child after his silent reading each day requires genuine agreement between teacher and child, although the activity may be suggested by either. (Many independent activities are necessary because it is imperative that the teacher be free to work with individual children or groups on their skills in their reading.)

The following examples of independent activities illustrate the range of choice:

Preparing for dramatization of a story,
Conducting a science experiment,
Preparing a puppet show,
Doing fact finding on a given subject,
Reading to get background for a news discussion,
Writing recipes for later use,
Keeping track of library books and other library routines,
Writing a letter (business or friendly),
Keeping a secret diary,
Writing an autobiography, perhaps using snapshots,
Labelling pictures and slides,
Preparing a script for a radio broadcast,
Writing in connection with a social studies project,
Polishing already taught handwriting skills,
Refining skills in arithmetic, use of dictionary, in the spelling of harder and harder words,
Viewing and reviewing books,
Illustrating main characters or events from the book,
Making a book jacket,
Making a diorama or stage-setting of a favorite part of the story,
Making a list of questions on a book for others to use (the child must include the answers),
Telling a part of the story putting on a different ending,
Making a bibliography of books on various subjects,

Identifying collections such as rocks, shells, etc.
Making a scrapbook,
Making a picture dictionary,
Planning and doing a bulletin board,
Making a time line or mural,
Making and playing skill games.

It is evident that planning the independent activities, group activities and follow-up activities must undoubtedly be a major concern to any teacher working on the individualized reading program. Careful planning of this, as well as of the entire reading class time, is essential.

Russell Stauffer's quote provides a fitting conclusion:

"Love for reading is not taught; it is created. Love for reading is not required, but inspired; not demanded, but exemplified; not exacted, but quickened; not solicited, but activated."

NAME OF CHILD

TITLE OF READING MATERIAL (PAGES)	DATES	OPINION OF BOOK	NEW WORDS	SEARING ACTIVITY

FORM B

NAME | AGE | GRADE | IQ. | READING TEST SCORE | YEAR

BOOK READ	PAGES COVERED	DATE OF CONFERENCE	COMPREHENSION CHECK	SKILLS NEEDED	RELATED ACTIVITY

FORM A

INTRODUCTION TO THE SEQUENTIAL LEVELS OF VOCABULARY DEVELOPMENT

A good reading program is so planned that different reading abilities are used to strengthen one another. The skillful teacher utilizes the principle of simultaneous learnings by the use of several different approaches to reading problems--auditory, visual and kinesthetic.

The following analysis of comprehension and study skills lists the various skills and abilities needed when reading for information and pleasure.

SEQUENTIAL LEVELS OF TEACHING VOCABULARY

Edgar Dale
Joseph O'Rourke

Grades 1 and 2

Skill	Activity
Develops vocabulary by:	1. Rhyming games, reproducing sounds: tall--ball, call, small; fill--bill, till, sill
a. listening to stories, poems	
b. Observes pictures--labels	2. Using phonetic clues: dim--rim; tin--fin; rob--rod; trim--brim; word--verb; etc.
c. Builds sight vocabulary	
d. Learns differences and similarities in sounds	3. Repeating and using onomatopoetic words: hiss, buzz, pop, splash, sizzle, whee,
e. Learns vowels, consonants, blends	huff, puff, fizz, ping, swish, whiz.

Grades 3 and 4

Skill	Activity
Develops oral and silent reading ability by:	Building sentences: Each child adds a word: The, The-dog, The-dog-ran, The-dog-ran-to, etc.
a. Interpreting objects and ideas in pictures, films, filmstrips.	2. Teacher stresses pronunciation or mispronunciation: hundred, hunderd; asked, asket; library, libary; probably, probly; everybody, everbody; once, onct.
b. Adds basal-reader vocabulary to his own.	
c. Increases skill in use of consonants, blends, vowels.	
d. Uses prefixes, suffixes, plurals.	3. Student adds beginnings and endings to root words: play--add ed--played long--add er--longer hold--add ing--holding toy--add s--toys
e. Uses the dictionary: learns use of hyphenated and compound words.	
f. Classifies words under appropriate topics	4. Uses dictionary to divide words into syllables to help in pronunciation. Notes double-vowel sounds in coat, beat, fail, oil, etc.
g. Recognizes syllables. Learns pronunciation skills.	
	5. Puts single words together to form compounds: cow + boy, black + bird, black + berry, suit + case.
	6. Classifies words by topics: BIG--large, great; LITTLE--small, tiny, wee.

Skill	Activity
a. Understands phonetics and structural elements of words; letters, blends, syllables	1. Additional practice using compound words and spelling. Noting that compounding two words into one does not change their spelling, e.g. staircase, bedroom, everybody.
b. Strengthens word analysis skills--use of roots, prefixes and suffixes.	
c. Enriches vocabulary by use of reference books in supplementary reading.	2. Applying spelling rules. Words ending in s, x, z, sh, ch form the plural by adding es--glasses, boxes, churches, etc.
d. Develops effective spelling skills.	
e. Uses contractions, homonyms, synonyms, antonyms, abbreviations.	3. Practice sound discrimination by finding words in dictionary that have long and short vowel sounds: āte, hē, īce, ōwe, ūse, ăt, gĕt, ĭt, pŏt, ŭp.
f. Increases ability to use dictionary pronunciation	
g. Understands word derivation inflection, multiple meanings.	4. Learning to use and recognize abbreviations: Mr., Mrs., AM., PM., etc.
h. Becomes skillful in classifying words as a means of conceptualizing them.	5. Learning to use and recognize contractions: isn't--is not, can't--cannot, I'm--I am, I've--I have.
i. Knows the origin of certain words.	6. Practice in word analysis, adding prefixes and suffixes to roots to change word meaning: equal: unequal, equalizer; graph--telegraph.
j. Manipulates letters of words to make different words.	8. Word origins: watt, ohm, guilliotine, maverick, space terms: Saturn rocket, lunar probe, etc.

Grades 7, 8 and 9

Skill	Activity
a. Has good dictionary habits, strengthens ability to pronounce, spell correctly, use words more precisely.	1. Regular, systematic study of roots, prefixes, suffixes. Analyze whole words, develop unfamiliar words from known words: telephone, phonetic, audiphone, geography, phonograph. graphite, etc.
b. Is conscious of need for "word power." Gains competency in use of word parts, roots, prefixes and suffixes.	2. Increase spelling skill through word analysis: tail + less=tailless; brown + ness=brownness; mis + spell=misspell; dis + satisfied-dissatisfied.
c. Recognizes figures of speech, metaphor, simile, personification.	
d. Learns precise terminology for various disciplines, grammatical usage, parts of speech, etc.	3. Build words from a common root, e.g., spect--inspect, spectacle, inspector, prospect respect, spectator, introspective, etc.
e. Develops models of language competency--structure, pronunciation, usages, etc.	4. Generalizing the meaning of words from known prefixes--mono: monoplane, monogram, monorail, monotonous, etc.
f. Increases appreciation for good literature, evaluates writers' choice of words.	5. Study word origins. Learning the history of words: hamburger (Hamburg; cereal (Ceres goddess of grain); frankfurter (Frankfurt); vulcanize (Vulcan, god of fire); etc.
g. Is aware of denotative and connotative meanings of words.	
h. Continues to classify words into filing systems of similarities and opposites.	6. Practicing pronunciation. Provide opportunity for auditory discrimination. Noting word-accent. Difference between EXtract and exTRACT; FREquent and freQUENT; INvalid and inVALID, etc.
i. Is conscious of contributions of other languages to English. Appreciates foreign languages and cultures. Becomes aware of historical continuity of words.	7. Discrimination between like-sounding or like-spelled words (poplar-popular; mole-mold)
j. Transfer: Integrates words and word elements with the study of various school subjects, e.g., Latin root lat (broad) and geographical term latitude; Greek hydra (water) dehydration.	8. Exercises in figures of speech: stubborn as a _____, etc. chickenhearted, catty, etc.
	9. Classifying words in similar or dissimilar categories: plain--fancy; smooth--rough.

Skill	Activity
a. Expresses thoughts in precise intelligible terms. Recognizes and evaluates good models of speech and writing.	1. Learning to write effectively. Study concrete words used by newspaper, magazine and short story writers. Note shades of meaning--good, kind, pious, sincere; walk, stumble, plod, trudge, amble, etc.
b. Cultivates habits of critical reading, listening, viewing, thinking. Understands the power of words to sway.	2. Practice denotative and connotative aspects of words: Home has a deeper emotional meaning than house. Not dents in cheeks--dimples. Is he thrifty or miserly? Is he a politician or a statesman? Listener or eavesdropper? Publicity or notoriety? etc.
c. Knows mechanics of good English usage.	3. Study construction words, their effect on sentence meaning. He came and he left. He came but he left. She stayed whereas he left. He will do it unless he . . . He will do it although he . .
d. Has developed a taste for good authors, books, poems, plays and an intellectual curiosity about present and past literature.	4. Learn word meaning through exercises in using context clues: A government ruled by a king is called a monarchy. A government ruled by the people is called a democracy. Definition, comparison, example.
e. Uses context clues to determine word meaning.	5. Learning the generative power key roots, e.g.; viv--vit (live), Vital statistics; vivid portraits; it vitalizes survival kits; vital organs, the survivors; revitalized; revival; vivify, convivial.
f. Understands the principle of transfer and ghe generative power of word elements, roots, prefixes and suffixes.	
g. Has developed proficiency in the use of the dictionary and other reference materials.	
h. Increases word knowledge applied to effective reading of current and standard literature.	
i. Has an understanding of the "geography of words"--the internationalism of words--ersatz, souffle, forte, etc. Understands the contribution of other languages to English.	

Grades 10, 11 and 12 (continued)

j. Uses etymology, derivations to study vocabulary systematically. Relates foreign language to the study of English. Continues study of word origin.

k. Uses metaphorical expressions.

6. Increasing students' knowledge and appreciation of key words and characters in standard literature: "Star-cross lovers"; "The quality of mer is not strained;" "Flower in the crannied wall;" "halcyon days;" etc.
Learning key terms: allegory, scansion, iambic, hexameter, metonymy, synechdoche, etc.
Literary allusions: Titan, Achille's Heel, ambrosia, Homeric, etc.
Using current literature--newspapers, magazines, etc. to examine and evaluate words.
Inventive newspaper voca lary: catch--net; dec slash; investigate--p criticize--rap.

7. Learning newspaper te copy, lead, deadline,

8. Associating words wit poi--Hawaii: tamale--M pumpernickel--Germany:

9. Learns derivations an of words: dis aster (the stars); philo so of wisdom); hircine (porcine (pig); super (overseer).

10. Learns interesting wo tories: sandwich, co boycott, derrick, Ama stature, Augean stabl Gemini mission, Herc l labor, etc.

11. Exercises in using m lionize, sheepish, el ine, etc.

Handwriting

The fives'--slant, shape, size, space and speed--may form the basis for the handwriting program.

Punctuation

In translating thoughts intelligently into an expressive form the child should use competently a number of specific skills. Punctuation is one of these skills.

The marks of punctuation taught at this level may be summarized:

1. Period
2. Comma
3. Quotation
4. Question
5. Exclamation
6. Apostrophe
7. Colon
8. Hyphen

Capitalization

Rules of capitalization should be taught when appropriate and needed. They may be summarized as follows:

1. The first word of a sentence
2. The first word of a direct quotation
3. The word "I"
4. Exclamatory words
5. Titles of stories, poems, books, etc.
6. First words in outlining
7. All proper names

Grammar

Grammar is the science that deals with words and their relationship to each other; it is a descriptive statement of the way a language works. Grammar includes a discussion of the forms of words, their use in phrases, clauses and sentences, their tenses and cases.

Teachers should consider these points:

1. Grammar is "dull" and "dry" only when it is studied for its own sake, not when it is considered as a means toward clear and effective writing.
2. Grammar is far from "lifeless;" it is a kind of organism, always changing and developing.
3. It is true that what we have to say is more interesting than a study of the language itself.

Study areas of grammar include:

1. Parts of speech

2. Sentence quality

3. Sentence sense

4. Paragraph writing

Outlining

One of the most useful devices to help pupils organize material and information and to put ideas into the shortest kind of sensible order is outlining.

Outlining should enable the child to:

1. Classify ideas into lists. This can be a list of words, book, etc.

2. Select the best title for a paragraph. This is, actually, choosing the main idea of the paragraph. Important details are then selected from the paragraph and written under the main idea. Once children can do this fairly well, the form of the formal outline is explained and introduced.

In brief, the student is led to discover the main idea and the important details in a paragraph and to arrange them in correct and numerical order. Start with a simple paragraph, give the class the following form and help them to complete each part:

I Main Idea

A. Important detail

B. Second important detail

C. Third important detail

Next, select two paragraphs as the example below suggests. Give the main ideas of each of the two paragraphs and let the child fill in the rest.

I. Purification of Water

A.

B.

C.

II. Uses of Water

A.

B.

Note Taking

A research paper is not written from memory. From various sources you collect evidence and illustrations to support your ideas.

The notes you take will be direct quotation, various kinds of summaries and combinations of quotation and summary. There are four possible reasons for using a quotation in a research paper:

1. Accuracy
2. Authority
3. Conciseness
4. Vividness

If you cannot justify a quotation by one or more of these reasons, you can safely summarize a passage in your own words.

Proofreading

The last step before you hand in a paper is thorough proofreading. This differs from revision in that it is largely mechanical, while effective revision is creative. In proofreading, look for:

1. Misspellings
2. Omitted words
3. Punctuation mistakes
4. Other errors

The student should correct the errors as neatly as possible. If a page contains several corrections so that it looks messy, you should have the student recopy it.

Composition

More progress in writing can be accomplished if two fundamental rules are recognized; first, all writing should be conducted in an atmosphere conducive to written expression; second, all writing should have an authentic purpose.

In classroom writing experiences balance should be sought in the following complimentary categories of expression:

1. Traditional forms of writing
2. Creative writing

Children need practice in practical writing, and the content for this kind of expression comes usually from social studies or science. Study areas in practical writing include:

1. Writing reports

   a. Locating information

   b. Using more than one reference

   c. Gathering facts

   d. Introducing various ways to present a report: plays, poems, songs, etc.

   e. Writing summaries

2. Letter writing

   a. Personal letters

   b. Business letters

Creative writing offers an effective means for stimulating creative thinking and the creative use of language. To encourage creative writing, the teacher should:

1. Provide many opportunities for writing;

2. Establish a relaxed atmosphere conducive to free expression;

3. Encourage students to experiment with forms and subjects for writing;

4. Use varied approaches to motivate writing;

5. Use evaluative techniques which encourage rather than discourage.[4]

Provisions for Individual Differences

The textbooks used in the areas of communication all give suggestions for differing abilities. In addition, suggestions are made throughout this guide and the Language Arts Curriculum Guide which permit the teacher to consider the differences in language ability within the class.

Evaluation

Communication skills (except for spelling) cannot be isolated and measured as arithmetic skills can be measured. The purpose of evaluation is to find weaknesses to be strengthened and strengths to be expanded, refined and deepened. Any evaluative program comes back to the individual. Since growth in communications is closely tied up with all other aspects of individual growth, the individual must be strengthened. The child learns to take pride in his own skills as his own self-image is strengthened.

Evaluative criteria pertinent to the areas of communication can be found throughout this guide and in the Language Arts Curriculum Guide.

[4]Iris and Sidney Tiedt, Contemporary English in the Elementary School

SOCIAL STUDIES BOOKS SLATED FOR DRAMATIC CHANGE

"The social studies textbook is dead."

At least, the conventional textbook is outmoded, believes Edwin Fenton, Director of the Carnegie Education Center. Educators in tomorrow's schools may consider the book a "subsidiary" in the teaching of social studies and that changes in teaching concepts may signal the end of the familiar textbook.

DISCUSSION. "Texts remain a good way to organize data," said Fenton, but they do not help raise the issues which students should be discussing.

A more open discussion of significant social issues will require that a textbook not be written along the same line as today's books, he said. Instead the new books will be full of biographical sketches, tables, graphs and pictures. On the surface, however, the social studies books of the future may look like today's textbooks as they "may come out in a hard bound cover with familiar titles to get them by the school board."

MATERIALS. Acting as a subsidiary to the social studies teaching plan, the text will be part of a long lineup of instructional materials used at different times in the lesson. The use of audio-visual materials will increase significantly to a place where tapes, movies and student-operated projectors will be common place.

Prepared lesson plans will be an integral part of the new social studies program and they will be more detailed and specific than the teaching guides of today. "The lesson plans show one way to get to one set of objectives with one set of materials," according to Fenton. For example, an explanation of A-V materials appropriate for the particular lesson will be included.

One day's lesson conceivably could be a discussion of a set of three pictures with a careful look at what the pictures mean to the students. The pictures will be without words or titles in some cases as the students will be encouraged to describe what they see in the pictures.

FREEDOM. "Elaborate teaching aids are not designed to hamstring the teacher," Fenton added. "Once you close the door you are in your own classroom. Every teacher ought to adapt material to his own personality and style of teaching."

There will also be a significant change in the content and message of A-V aids will be prepared for a single purpose for a particular age group.

Heart of the new social studies curriculum is the concept that students need to develop a "skill of inquiry." Teacher strategies may take the form of "directed discussions" in which all children are challenged to find their own solutions to issues.

The goal of the new program is not getting all students to reach the same viewpoint, but rather to encourage students to refine their own positions, he said. The object is "clarification not consensus."

RESPONSIBILITIES. The new social studies program is being produced on the theory that schools "should develop the child into an independent thinker and a responsible citizen." Teachers will be urged to make the students realize that a "responsible citizen is a participant who wants to hear all sides of debate." This teaching goal, for example, will prompt instructors to "call on students who don't raise their hand to point out that citizens do not get free rides."

A change in the direction of social studies will not spell the end of student accumulation of knowledge and facts. Every student should know how the government and economy operates and understand the make-up of the cities, Fenton said.

Through an expanded source of materials available in social studies instruction, he said, practical skills for students can be covered easily, such as: Choosing a vacation site, putting sound on recording tape, taking photographs and reading an historical novel.

The deluge is just around the corner, Fenton predicted. By 1970 educators throughout the nation will be "flooded" with the new social studies instructional projects. In a note of caution, he said, educators should not rush blindly into the acceptance of new programs. "You must look at all new materials critically. Each of you knows students better than a college professor. It is a crime against kids to try materials sight unseen."

SOCIAL STUDIES
A Point of View

Social studies play a fundamental role in life and in living. We believe that a good social studies program "should develop the child into an independent thinker and a responsible citizen." This teaching goal will make the students realize that a "responsible citizen is a participant who wants to hear all sides of a debate."

It will provide the opportunity to examine critically values and beliefs held by many individuals and groups. It should operate within the requisites of inquiry and the end result of inquiry should be the production of a body of tested principles and generalizations about human relations and societies.

It should be remembered that the purpose of social studies is not only to develop the ability of students to identify dependable generalizations, but to be able to outline steps taken, roads to be traveled, utilizing both cognitive (analytic) and intuitive (creative) processes and skills to identify dependable generalizations.

"The teaching of social studies should consist of at least these elements:

1. the acts by which teachers create positive learning situations,
2. the acts through which children engage in the investigation of man and his relationship to his environment,
3. the acts through which children seek orderly explanation of human nature, and
4. the acts through which children test their explanations."[1]

The goal of the new social studies program is not getting all students to reach the same viewpoint, but rather to encourage students to refine their own positions (the object is "clarification not consensus").

GENERAL OBJECTIVES TO SOCIAL STUDIES

1. To develop the ability to live together in a democratic society.
2. To develop an understanding that all must live together in a rapidly changing world:
   a. Living together in our local community
   b. Living together in our state
   c. Living together in the United States
   d. Living together in our world
   e. Living together in the realm of space.

[1]Brandwein, Paul F., "Notes on Teaching the Social Sciences: Concepts & Values," Harcourt, Brace and World, Inc., 1969.

3. To develop anunderstanding of the inter-dependence of individuals and groups:
   a. Understanding the responsibilities, rights and needs of the individual
   b. Understanding the responsibilities, rights and needs of individuals as they function in groups.
4. To develop an understanding of the importance of natural resources and conservation practices.
5. To develop an understanding of the economic, social and political implications involved in current urban problems, national and world problems.
6. To develop opportunities for the child to expand his cultural horizons.
7. To develop the facility and ease in the use of the inquiry method in studying the history and geography of the United States and the world.
8. To develop the ability to use skills such as finding, organizing, evaluating and presenting information.
9. To develop familiarity with dependable sources of information.
10. To develop familiarity with technical vocabulary of social studies.
11. To develop the ability to use effectively tools essential to understanding historical and geographical materials: ie. books, maps, globes, charts, statistical materials, etc.

SOCIAL STUDIES METHODOLOGY

There is a difference between technique and method, of the two concepts method is the more comprehensive while technique entails greater diversity.

Technique may refer to any number of practices and approaches used in the Motivation Center, such as lecturing. Lecturing is a technique for presenting certain material to the class. Discussion is a technique for presenting new material, testing comprehension or developing greater understanding. Group work, showing a film, extra reading, giving reports, and writing stories and papers are all examples of techniques of instruction.

Method, on the other hand, is here conceived as referring to the overarching attitude the teacher takes toward knowledge, the materials at hand, the learning situations and the roles that he and his students are to perform. There may, in fact, be only two clearly definable methods of teaching. In the first of these--often called the "traditional method"--the teacher assumes the role of expositor of knowledge while his students act as recipients.

In the second method, the teacher assumes the role of manager or coordinator of inquiry. The students in this case become participants in the process of reorganizing this knowledge around new centers of attention and interest. The learning situation is characterized by seeking, discovering, reorganizing and testing of knowledge. This second method may be called the method of inquiry or the reflective method of teaching.

TEACHING STRATEGIES FOR SOCIAL STUDIES IN THE MOTIVATION CENTER

As teachers of the Motivation Center we will assume that thinking can be "taught," appropriate elements and skills are identified and a teaching strategy is required that is at a considerable variance from those commonly used.

The idea that thinking can be learned only by doing puts the teaching role in a new light. Instead of telling, teachers need to learn to ask questions which guide the students' search and lift the levels of thought. To perform these functions, and provoke appropriate distinctions, questions need to have a double focus. They need to establish a content focus as well as elicit a particular cognitive operation. For example, a question such as, "What materials do we use in making steel?" focuses on materials for making steel, but it also asks the students to enumerate. It excludes other content pertinent to making steel, such as machines and labor, and similarly excludes other cognitive processes, such as explaining why certain materials are used.

No textbooks, per se, will be provided in Social Studies. Learning experiences as outlined on following page will provide the basis of the program. Reading, language arts, math and science will all become an integrated part of Social Studies.

Black History and Heroes will also be a regular and integrated part of Social Studies in each center.

The teacher will urge and encourage individual Social Studies projects and research for each child.

Audio-visual materials will be an important source for many Social Studies learning experiences.

CRITERIA BY WHICH TO SET UP LEARNING EXPERIENCES

Generalizations involve the statement of a general law or principle that may be applied to several situations having the same characteristics. They serve as centers around which to organize learning. They are a most durable form of knowledge because they do not change as rapidly as facts.

Concepts always have to do with meaning and may deal with concrete places, objects or institutions, such as, mountain, county, city, river or with abstractions, such as, freedom, honesty, loyalty.[2]

First-hand experiences are of inestimable importance and cannot be overemphasized in the teaching of concepts and generalizations.

Opener:

Activities that are necessary to prepare both the teacher and the students for the proper approach to the main idea. It allows the teacher to "cue in" to the child's reality.

Functions of the Opener:

1. Provides diagnostic evidence for the teacher, such as what concepts the children can handle, the nature of their previous understandings and experiences, the needs and gaps in the experience of both the group and the individual.
2. Provides experiences which arouse student interest.
3. Relates experiences of students to topic of the unit.
4. Provides an opportunity to practice skills of classifying and categorizing information.

Field Trips

Field trips, large or small, are of inestimable value in all learning but especially in Social Studies. The field trip in and of itself will not contribute to the necessary skills, but it is how you plan the learning experiences which contribute not only to the thinking skills, the academic skills and the social skills but also to a positive self-concept, an essential for achievement in school.

[2] John Jarolimek, Social Studies in Elementary Education, New York, The Macmillan Company, 1967, pg. 39.

The planning and conducting of a field trip must make contact with the child and his world. The teacher must search out the connections which link the child's nature and interests to a more elaborate perception of the world, and utilize those connections as learning vehicles.

"One main entrance to the child's world is through his language. The heart of teaching lies in reaching for the child's content, understanding its significance, and building upon it so that it becomes larger and expands his frame of reference."[3] The teacher must learn the language of the child.

[3] Mario D. Fantine and Gerald Weinstein, The Dis[illegible]ntaged: [illegible] Challenge to Education: New York: Harper and Row Publishers, 1968, pp. 376.

Here are some ways that the process of Inquiry may be conducted as suggested by Hilda Taba:

CONCEPT FORMATION

Overt Activity	Covert Mental Operation	Eliciting Question
1. Enumeration and listing	Differentiation	What did you see? hear? note?
2. Grouping	Identifying common properties; abstracting	What belongs together? On what criterion?
3. Labelling, categorizing, subsuming	Determine the hierarchical order of items. Super- and sub-ordination.	How would you call these groups? What belongs under what?

INTERPRETATION OF DATA

1. Identifying Points	Differentiation	What did you note? see? find?
2. Explaining items	Relating points to each other. Determining cause and effect relationships. Recognizing limitations of data.	Why did so-and-so happen?
3. Making inferences, generalizations	Going beyond what is given. Finding implications, extrapolating	What does this mean? What picture does it create in your mind? What would you conclude?

APPLICATION OF PRINCIPLES

1. Predicting consequences. Explaining unfamiliar phenomena. Hypothesizing	Analyzing the nature of the problem or situation. Retrieving relevant knowledge	What would happen if . . . ? What idea might account for . .
2. Explaining, supporting the predictions and hypotheses	Determining the causal links leading to prediction or hypothesis	Why do you think this would happen?
3. Verifying the prediction	Using logical methods or factual knowledge to determine necessary and sufficient conditions	What would it take for so-and-so to be true or probably true? Or not true?

EXCURSION--URBAN RENEWAL

Generalizations: Man changes his environment. Changes take place as new ideas are put to use. Many changes are taking place in our community.

CONCEPTS	OPENER	LEARNING EXPERIENCES
Change Urban Demolish Highways Buildings	We are going to take a trip to see some of the changes which are taking place in Youngstown. This particular change is called Urban Renewal. All we want you to do is to jot down or tell us anything that comes to your mind about what you see or hear. Take a camera along and take pictures. More Learning Experiences Ask the children, "What are some things which we might do or make as a result of our trip?" Possible Suggestions Make a model of the community as it is today. A model as you would like to see it. Make maps before and after demolition. Make transparences (1) as a beginning community, (2) before urban renewal, (3) plan after renewal.	After returning from the trip, ask the students to tell what they saw or heard which interested them. Teacher lists on board. Next ask, "What things can be put together?" Classify on board. Next question, "Are there any items which we can put under some others?" If so, make the outline on the board. (This is developing the skill of classification, an organizational skill of great importance--often neglected.) Use open-ended questions to stimulate discussion on what they think about this; how they feel about this. (Listen for cues to understanding the children.) Ask what important words they would like to know and learn. Using a card for each word. Give each child the word or words he would like to learn. Follow through on this by checking each child each day. When he has learned his words, he is eligible for new words. You see it is a privilege to receive words!

AN EXCURSION BEHIND YOUR WATER FAUCET

(Mahoning Valley Sanitary District)

Generalizations: A good water supply is essential to health, cleanliness, comfort and prosperity of our community.

Aim: Understanding the use of water in our community--appreciation for a good water supply.

CONCEPT	OPENER	LEARNING EXPERIENCES
Residential Industrial Public Commercial Loss Pollution Conservation	Read a poem to the class or read to the class from the book, Our Water Supply, the amount of water used by residences, industries, the public, commercial and the amount lost. Has water always been at man's fingertips? How can we conserve our water supply? How is the amount of water used measured?	Why is our water supply important and precious? List on chalkboard: 1. Protects and promotes public health 2. Strengthens fire defenses 3. Stimulates community growth 4. Contributes to recreation. Suggested Experiences: Read to find out man's difficulty during early times to find a safe adequate water supply. (Ancient man and water in India, Egypt, Persia, Greece and Rome.) Visit a water purification plant. Reports--The importance of water as cities grow. Interviews--Persons who are familiar with the commercial, residential and industrial use of water. Science--Hydrologic cycle. Math--Learn how to read a meter and figure cost per gallon. Conservation--Leaks, pollution and waste.

COURTS AND TRIALS

Generalization: Our government has many "levels" of courts of law to preserve law and order.

Objectives: To acquaint students with the United States court system. To acquaint students with knowledge of social conditions that may lead people to commit crimes and break laws. To acquaint students with a juvenile court.

CONCEPTS	OPENER	LEARNING EXPERIENCES
Justice Court Traffic Court Juvenile Court District and County Court Supreme Court (state) Federal District Courts Court Personnel defendant plaintiff witness jury judge bailiff clerk lawyer social worker parole officer verdict jury jury box law	Play the recording, "Here Comes the Judge," or have students role play their conception of a court trial? Or, do any of you watch Perry Mason?	1. What persons take part in a court trial? (list) 2. What function does each perform? (classify) 3. Why must a judge be very wise, honest, courageous and able to put himself in another's place? 4. What are some things a judge may say to a lawyer? To the defendant? To the jury? 5. What does a lawyer do in a courtroom for a defendant? For a plaintiff? (Continue this sort of thing with all court personnel.) 6. What is a juvenile delinquent? 7. How do juvenile courts handle juvenile delinquents? 8. What things can a juvenile do to become a juvenile delinquent? Other Suggested Activities 1. Prepare questions concerning laws and invite a court social worker or lawyer to discuss answers to these questions. 2. Visit City Hall (courts, police station, etc.). 3. Make a "Careers" notebook. Have students find out what education and training is required of a judge, lawyer, social worker and parole officer. 4. Plan a culminating activity and invite parents and persons of the community.

CURRENT EVENTS

Generalizations: Changes are constantly taking place and students should be aware of them. Also, students should know how their community is affected by events happening in the rest of the world.

Objectives: To acquaint students with the knowledge of history in the making (local, national and in the world).

CONCEPTS	OPENER	LEARNING EXPERIENCES
Current Events Local National World Editor Columnists Headlines Front page Contents Advertisement Geographical Map Skills beginning with our community in relationship to places in the news Continents Hemispheres directions land forms scale of miles climate population	What is the name of our leading newspaper? How many of you read the newspaper? How can we let our schoolmates know what is the current happenings in and around our school?	What things can we find and read about in the newspaper? (List on chalkboard) Classify and arrange under proper topic: What are some things we can do to make us more aware of daily happenings? (List) 1. Read the newspaper in class. 2. Display the most important current events on the bulletin board daily. 3. Publish a school newspaper. 4. Find out the titles given to people that help in writing a newspaper. 5. Visit a newspaper office.

EXCURSION TO GENERAL MOTORS

Generalizations: Automobiles are important. More persons travel by car in America than by any other means. Auto workers must do their jobs well.

Objectives: General knowledge of what it takes to make cars run. To understand they need good care and good highways are necessary. Importance of knowing and obeying safety rules and road signs.

CONCEPTS	OPENER	LEARNING EXPERIENCES
Travel Care Safety Signs Highways Workers Assembly Line Mechanic Steel Information Map (Read highway routes) figuring out distance and time	A trip to General Motors to watch cars being made and how much worker takes. Take a camera along and take pictures.	1. Returning from the trip, ask students to tell what interested them most. (Teacher list on board.) Allow a lot of comfortable talking before recording. Listen for cues to understanding and interests. When recording, remember to use the skill of classification, skill of great importance--often neglected. Use open-ended questions to stimulate discussions on what they think and how they feel about this. 2. Talk about and compare the cost to travel by car and other means of transportation. 3. Talk about helping to care for the car. 4. Discuss engines and how burning fuel makes them run. 5. Inventory the number of cars in each child's family. 6. Compare the amount of traveling the children do by automobile with that of other means of transportation. 7. Reading road maps. (directions, miles, etc.) 8. Figuring the amount of gasoline used. 9. Reading the audiometer (check the number of miles traveled by the vehicle), speedometer. 10. Make models of cars. 11. Make a mural showing the assembly line.

TRANSPORTATION
Motorcycle

Generalizations: Motorcycles offer a means of transportation and also provides fun for the rider. Motorcycles are popular with many young men because they do not use much gasoline and they can travel very fast.

Objective: To inform children about motorcycles (safety, travel, etc.)

CONCEPT	OPENER	LEARNING EXPERIENCES
Transportation Recreation Safety Differences as compared with other means of transportation. Equipment	A Story We are going to listen to a story about motorcycles to find out why they are so popular in our community. All you are to do is to make a "mental note" on some of the important things you found out.	Allow free talking and listen for understanding and interests. After listening, ask children to tell what they learned about motorcycles. (Record, classify, etc.) Write poems about motorcycles. Write stories about motorcycles. Invite someone that has a motorcycle to school. Maybe the children can meet the person on the playground or in the parking lot. Allow students to ask many questions. Questions the teacher might ask the class: 1. How many passengers can ride a motorcycle? 2. How is a motorcycle different from a bicycle, a car, etc.? 3. Why can driving a motorcycle be dangerous? 4. What equipment is necessary? 5. What amount of gasoline is used per mile?

HELICOPTERS

Generalization: Helicopters are used in many ways to help people.

Objectives: To acquaint students with the uses of helicopters. To understand why they are built as they are. To stimulate curiosity about how helicopters can fly. To teach safety rules in approaching helicopters.

CONCEPTS	OPENER	LEARNING EXPERIENCES
Transportation Emergency Construction Safety Heliport	Display a picture and discuss uses for helicopter or visit a heliport or an airport.	Listen to the story on helicopters. Discuss the students experiences with helicopters. (Using the skill of classification.) Suggested experiences: 1. Show the filmstrip, "The Airplanes). Does many jobs (filmstrip of the month club) (This is a colorful series of pictures showing all types of planes including several types of helicopters.) 2. Poems. 3. Story before writing the story seek answers to these questions: a. Do you know the name for a landing that is especially for helicopters? b. About how many passengers can a helicopter carry? c. What can helicopters do that airplanes can't do? d. What is the nickname for a helicopter?

STEEL INDUSTRY

Generalizations: Steel plays an important role in our American way of life and most of our families depend on the steel mills.

Objectives: Understanding the steel making process. Appreciation for our basic industry. To understand the importance of each worker's job.

CONCEPTS	OPENER	LEARNING EXPERIENCES
Bessemer Process Hot Strip Cold Strip Open Hearth Tube Mill Blast Furnace Automation	What do you know about our steel industry? List. What things can we group together?	How many of you know someone that works in the steel factory? What job does that person perform? Can you find out more about his job? What are some of the uses of steel? How did the making of steel come about? What are some of the things we can do to make our study of steel interesting? 1. Excursion to a steel plant. 2. Find pictures that illustrate the steel making process. (Writing letters, Sheet and Tube, Republic, etc.) 3. Make scrapbooks--uses of steel. 4. Make a large mural showing uses of steel in our school. 5. Use of the films from the Industrial Information Institute on steel making.

GOVERNMENT

Generalizations: Our Federal, state and local governments are examples of democracy and they preserve our democratic way of life.

Objectives: To acquaint students with our Federal, state and local governments.

CONCEPTS	OPENER	LEARNING EXPERIENCES
Federal Government State Government Local Government President Governor Mayor Senators Vice President President of Council City Council Directors Etc.	What form of government do we have in the United States of America.	What title is given to the leader of our nation, our state and our city? List. What persons help these officials? List. How can we find out more about our government? 1. Movies 2. Visits Washington, D. C. Columbus City Hall 3. Write letters to our Congressmen, etc. 4. Find articles in the newspapers and magazines. 5. Use the encyclopedias. 6. Visit a session of City Council.

HEROES

Generalizations: All groups played an important role in making America great.

Objectives: To understand the differences and likeness of peoples of the world and acceptance of the same. To understand peoples of the world through their great men and women, races and cultures.

CONCEPT	OPENER	LEARNING EXPERIENCES
Local National World Past Minorities Characteristics Differences Likeness Contributions	Display pictures appropriate for the group concern (be sure to include some of their idols) and tell some people she admires.	What person do you admire? (List on board) Why do you admire this person? Have everyone think for a few minutes, then see what ideas come to the mind. List these also. Then classify accordingly (local, national, world, past, minorities). How can we find out more about our heroes? 1. Reading books. 2. Interviews 3. Visits. 4. Movies. 5. Filmstrips. 6. Reports. Would you like to role play your most admired person or hero? How can we let others know about our favorite heroes? Plan a program and invite others (culminating activities).

LATIN AMERICA

Generalizations: It is important that all people of this hemisphere understand each other and live well together.

Suggested Approaches: A display of Latin American handicrafts or a talk by a person who has traveled in any of the countries. An exhibit or pictures of tropical foodstuffs.

Learning Experiences:

I. The Countries

1. What is meant by "Latin America?"
2. Which countries are included?
3. Where are they?
4. Why are they called "Latin?"
5. What should we know about these countries?
   a. People
   b. Ways of living
   c. Education and art
   d. The land
   e. Agriculture and industry
   f. History
      Who were the explorers of Latin America? Who settled the Latin American countries? What kind of people did they find there? How did they win their independence? How does their history compare with ours?
   g. Present governments and international relations.

Use the above format for the study of other lands and people.

EARLY CIVILIZATIONS
Greek and Roman

Generalization: Early civilizations made many contributions to our present day society.

Objective: To understand how our society has been affected by the early civilizations.

Greek Civilization

Learning Experience:

1. What was the first great civilization to develop in Europe?
2. When and where did it have its beginnings?
3. Where and when did it reach its height?
4. What were its most important characteristics and achievements?

Activities:

1. Make a relief map of Greece.
2. Begin a time-line, which will be added to as the unit progresses, indicating important dates.
3. Draw or model Greek vases and decorate them with scenes from Greek life.

Roman Civilization

Learning Experience:

1. Where and when did the second great civilization of Europe develop?
2. How far did it extend?
3. What were its chief characteristics?
4. In what ways did it differ from Greek civilization?

Activities:

1. On the time-line depict important events during the history of the Roman Empire.
2. Make a series of maps showing the growth of the Roman Empire.
3. Read biographies of famous Roman leaders.
4. List ways in which our present practices of government are like those of the Romans.
5. Report on the reasons for the decline of the Roman Empire.
6. Make scrapbooks illustrating contributions made by the Romans to our way of life: calendar, roads, laws, Roman numerals, etc.

African Civilization

Generalization: Early civilizations made many contributions to our present day society.

Objective: To understand the early civilization that flourished in Africa.

African Civilization

Learning Experience:

1. Research the great early civilizations of Africa.
2. When, where and how did they begin?
3. For what was each noted?
4. List heroes and accomplishments of each.

Activities:

1. Relief map of Africa.
2. Time line of African civilizations.
3. Make dioramas or a frieze of an ancient African culture.
4. Make examples of African art, ancient or modern.

PHILOSOPHY OF ELEMENTARY MATHEMATICS

Since our country, together with many others, is rapidly moving into a super modern economy of automation, cybernetics, etc., a deeper understanding of mathematical ideas, as well as an ability to think logically is required on the part of more people today than ever before. A mathematical education is necessary for most categories of the skilled and professional working force. Even unskilled labor requires more mathematical skills today.

Today, we are guiding the working force of tomorrow and our mathematics program must be one that is meaningful and realistic for this new era. The mathematics program must not only consider the nature of the society in which it functions, but also the growth and development of the pupils in this society.

We believe that children differ in receptivity for learning, in the rate of learning and in learning characteristics. Therefore, the purposeful mathematics program of the motivation center will make provision for individual differences and will stimulate, guide and encourage the learner to think logically about mathematical patterns and relationships at his level of understanding. It will encourage student imagination and creativity.

We also believe that what we know about how a child learns holds certain implications for teaching of mathematics.

2. Meaning and relationship are controlling principles in learning. Material which is organized, related, and in which recurring patterns are noted and practiced is more functional in its use and is more easily learned and remembered than that learned without pattern and without organization. If we are committed to an understanding approach, the question of time becomes important in teaching. It requires only a few minutes in a conventional program to tell students how to solve systems of equations, but it will take the better part of a class hour to use the approach that requires understanding. The structured approach requires more time in terms of teacher preparation and is effective with slow-moving students as well as with honor classes.

Motivation is essential to effective learning. When we understand that a child is essentially a curious person who likes to explore, we then have the key to learning mathematics.

Some other conditions which are conducive to general learning and especially math, of which the teacher should be cognizant include:

a. Continual failure by an individual at any level makes for ineffective learning.
b. Learning is improved by practice in formulating reasonable individual goals.

c. Favorable general reaction to a learning situation helps learning and unfavorable general reaction interferes with learning.
d. Knowledge of one's progress contributes to effective learning.
e. A backlog of success helps to develop a tolerance for failure.

3. After understanding has been established, an adequate program provides for sufficient practice to fix concepts and maintain skills.

4. Active participation by the student tends to produce an effective learning experience. Opportunities to experiment observe and generalize should be given.

5. Effectual learning is continuous and developmental in nature.

To conclude, we believe that mathematics is a dynamic subject which should be designed to meet the needs of a constantly changing society. "The mathematics curriculum will continue to change and deepen for the indefinite future under the impact of the many pedagogical and psychological experiments now being conducted in all parts of the world. It is a mistake to think of any current curriculum as being the final word on how elementary school mathematics should be organized and taught."[1]

GENERAL OBJECTIVES

1. To understand the structure of mathematics, its laws and principles, its sequence and order, its language and symbols, and the way in which mathematics as a system expards to meet new needs.

2. To develop sensitivity to patterns in mathematics.

3. To develop an appreciation of the broad cultural aspects of mathematics and its contributions to the development of the modern world.

4. To develop an insight into mathematical relationships.

5. To develop an ability to recognize those situations in daily living requiring mathematical solutions and the appropriate techniques for solving them.

1 Evelyn Weber et al, "New Direction in Mathematics, (Washington, D. C.: 1965), Association for Childhood Education International, p.64.

6. To develop a high level of skill in computation as is realistic in consideration of each child's potential.

7. To grow in creative and imaginative methods for attacking mathematical problems.

MEETING INDIVIDUAL NEEDS IN ARITHMETIC

The tests administered by psychologists will help determine the math working level of each motivation center child.

It is obvious tnat a great range in both skills and understandings will exist in the motivation center. The aim is not to reduce the differences, but a good teachercreates even greater ones. The manner in which the class is organized determines the effectiveness with which the teacher meets individual differences. The key for meeting individual differences is teacher awareness of pupil needs. The E.B. math materials make possible individualized instruction with each child, working at a level where he has success . He will move forward from that point at his own pace.

As mentioned before, the members of the center are at various levels of achievement in arithmetic just as they are in reading. Some need help with multiplication, others with division and still others with fractions. Time will be provided for study of arithmetic and to follow through on personal interests and needs. In this time, some children are helped to discover new meanings under the teacher's direction, while others continue to work independently on problems or practice skills at their level of development. The aides will also give individual help.

ELEMENTARY SCHOOL MATHEMATICS
PRIMARY SCOPE AND SEQUENCE

TOPICS	LEVEL ONE	LEVEL TWO	LEVEL THREE
Set Concepts	Cardinal number of a set Union of sets Comparison of sets Intersection of sets (intuitive)	Maintenance Partitioning of sets Product sets	Maintenance Product sets Intersection of sets
Place Value	Two-digit Grouping by tens	Three and four digit Grouping by tens, hundreds, and thousands	Thousands and millions
Sequences	Simple counting sequences through 99 Skip counting Numeral writing	Simple counting sequences Skip counting sequences	Skip counting sequences Discovery type sequences
Inequalities	Introduction and in place-value development	Maintenance extended use for place value in carrying and borrowing development	Maintenance Extended use for place value Estimation Reasoning
Notation	Place value Fraction symbols: =, +, -, ¢, () variable ( ) Number line	Extension of place value New symbols: X, $ Roman numerals	Extension of place value New symbols: ÷, , { } variable (n)

ELEMENTARY SCHOOL MATHEMATICS
PRIMARY SCOPE AND SEQUENCES

TOPIC	LEVEL ONE	LEVEL TWO	LEVEL THREE
Number Facts	Addition (through 10) Subtraction (through 10) (Introduction of facts through 10)	Addition (through 18) Subtraction (through 18) Multiplication facts, introduction	Multiplication (through 8) Division (through 8)
Equations and Solution	Addition and subtraction placeholder box (□) Inverse relation (addition and subtraction)	Addition Subtraction Multiplication Placeholder box (□)	All four operations Variable with screen
Number line	Introduction Addition and subtraction operations	Addition Subtraction Multiplication	All four operations Fractions
Basic Principle	Use of parenthesis Addition principles commutative, associative, zero, and one	Maintenance Multiplication: commutative, zero, and one	Maintenance Distributive
Processes (algorithems)		Addition (with carrying) Subtraction (with borrowing) Horizontal and vertical	Maintenance Multiplication (1-digit multiplier) Division (1-digit divisor)

ELEMENTARY SCHOOL MATHEMATICS
PRIMARY SCOPE AND SEQUENCE

TOPIC	LEVEL ONE	LEVEL TWO	LEVEL THREE
Rational Number	Introduction to fractions	Extension of fraction concepts Intuitive work with inequalities	Maintenance Multiplication (1-digit multiplier) Division (1-digit divisor)
Problem Solving	Oral problems Coin problems	Simple addition subtraction, multiplication problems Money problems	All four operations Inequality problems Scientific problems
Logic	Sequences of exercises used in teaching basic facts	Sequences of exercises used in teaching basic facts	Simple work with implication using in teaching basic facts
Number Theory	Odd and even numbers	Odd and even numbers Sums and products of odd and even numbers	Odd and even numbers Multiples and factors Prime numbers
Estimation	Work with inequalities	Inequalities development leading carrying and borrowing	Sums, differences, products and quotients Using inequalities in measurement

ELEMENTARY SCHOOL MATHEMATICS
PRIMARY SCOPE AND SEQUENCES

TOPIC	LEVEL ONE	LEVEL TWO	LEVEL THREE
Measurement	Linear: inches and centimeters Liquid: cups, pints, quarts and gallons	Linear: inches and centimeters Liquid: cups, pints, quarts, and gallons Time	Maintenance Area Time
Graphs and Scale Drawings		Maps and charts	Maps and charts

ELEMENTARY SCHOOL MATHEMATICS
INTERMEDIATE SCOPE AND SEQUENCE

TOPIC	LEVEL FOUR	LEVEL FIVE	LEVEL SIX
Set Concepts	Maintenance and extension Sets of equivalent fractions Universal set and complement	Maintenance and extension Sets of equivalent fractions Solution sets Sets or ordered pairs	Maintenance and extension Solution sets Sets of ordered pairs
Place Value	Through trillions	Maintenance Exponential notation Other bases of numeration Decimal	Maintenance and extension Scientific notation
Sequence	Skip counting sequences Discovery type sequences	Discovery type sequences Rational number sequences	Discovery type sequences Rational number sequences Repeating decimal sequences
Inequalities	Maintenance for fractions Indivision algorithm Estimation and reasoning	Solution sets Graphing on a number line Relations for rational number Estimation	Solution sets Graphing in a plane Relations for rational numbers Estimation
Notation	New symbol ≠	Variables: a, b, ..., n, ..., x, y, ... New symbols: decimal point, degree f (n), U, ∩	New symbols: ∑, %, (-a) Scientific exponents

ELEMENTARY SCHOOL MATHEMATICS
INTERMEDIATE SCOPE AND SEQUENCE

TOPIC	LEVEL FOUR	LEVEL FIVE	LEVEL SIX
Number Facts	Maintenance	Maintenance	Maintenance
Equations and Solutions	All four operations Variable with screen Equations with fractions	Maintenance Variables (letters) (letters) Solution sets	Maintenance Variables (letters) Solution sets
Number Line	All four operations Equations with fractions	Maintenance Graphing Rational number line	Maintenance Graphing Coordinate axes
Basic	Maintenance (whole numbers)	Maintenance (whole numbers) Introduction for rationals	Maintenance
Processes	Maintenance of addition and extension of multiplication and division Intuitive work with operations	Maintenance operations (fraction notation)	Maintenance Operations (fraction notation) Operations (decimal notation)

ELEMENTARY SCHOOL MATHEMATICS
INTERMEDIATE SCOPE AND SEQUENCE

TOPIC	LEVEL FOUR	LEVEL FIVE	LEVEL SIX
Problem Solving	General interest problems Problems with fractions Inequality problems + estimation mult. operations	General interest problems Multiple operations Averages	General interest problems Multiple operations Averages
Measurement	Maintenance and extension for perimeter surface are liquid extimation	Maintenance and extension	Maintenance and formulas
Graphs and Scale Drawing	Maps Charts	Maps Charts Bar and circle graphs	Maps Charts Bar and circle graphs Graphs of functions

SCIENCE PROGRAM
MOTIVATIONAL CENTER

The Science Program for the motivational center is the Tannenbaum-Stillman material. Complete kits with teacher's manual and everything necessary for each child to perform and record every experience in four basic areas of scientific study are provided for each center.

All the study will undergird and supplement the TV science program, as well as textbooks, provided for the regular public school classes.

The actual class session may be done with the whole group. However, it is hoped that many children will desire to go beyond the structured program with individual research and experimentation. The teacher will urge and encourage all such effort. Thus, it will be quite possible that the Science program will become very early in the year as individualized as the reading, math and social studies.

BIBLIOGRAPHY

Association for Childhood Education International, New Directions in Mathematics, Washington, D.C.; Association for Childhood Education International, 1965.

Brumfiel, Charles, Robert Eicholz, Merrill Shanks, Fundamental Concepts of Elementary Mathematics, Reading, Massachusetts: Addison-Wesley, 1962.

Eicholz, Gerhard C., "Spelling Improvement Through a Self-Check Device," Elementary School Journal, 64:373-76, April, 1964.

Evenson, A. B., Modern Mathematics, Introductory Concepts and Their Implications, Chicago: Scott, Foresman, 1962.

Fantini, Mario D. and Weinstein, The Disadvantaged Challenge to Education: New York, Harper and Row Publishers, 1968, pp. 376-379.

Getzels, J. W., "Creative Thinking, Problem Solving and Instruction," (Helgard, Ernest R., editor.) Theories of Learning and Instruction, Sixty-third Yearbook of the National Society for the Study of Education, Part I, Chicago: University of Chicago Press, 1964, p. 251.

Haber, William P., "Phonics: A Boon to Spelling?" Elementary English, 64: 383-88, April, 1964.

Jarolimek, John, Social Studies in Elementary Education, New York, The Macmillan Company, 1967, p. 30.

Jenkins, Marian, "Here's to Success in Reading," Readings from Childhood Education, 1966.

Massialas, Byron G., Cox, Benjamin, Inquiry in Social Studies, 1966.

Miel, Alice, "Growth in Social Living Through the Tools of Learning," Readings from Childhood Education, 1966.

National Council for the Social Studies, Effective Thinking in the Social Studies, Thirty-seventh Yearbook, 1967.

Ohio Association for Supervision and Curriculum Development, "Ten Ways to Meet Indidivual Needs in the Classroom," 1960.

Strickland, Ruth G., "How Children Learn Their Language," Readings from Childhood Education, 1966.

Youngstown Public Schools, Course of Study for Language Arts, Elementary Grades (1-6), 1966.

Youngstown Public Schools, Course of Study for Mathematics, Grades 1-6, 1966.

Zirbes, Laura, "What Creative Teaching Means," Readings from Childhood Education, 1966.