# Individualizing Instruction Through the Use of Classroom Groups 

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In Partial Fulfillment of the Requirements for the Degree Master of Education

## by

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August 1964
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\section*{CHAPTER I}

\section*{THE PROBLEM AND DEFINITIONS OF TERMS USED}

\section*{I. INTRODUCTION}

Educators, seeking to provide an educational program fitted to the individual requirements of their pupils, have evolved a great variety of grouping plans and teaching procedures, but they have not been able to reach a consensus regarding the best approach to the problem of differentiated instruction in the public schools. In the absence of specific direction from school authorities, the classroom teacher must assume responsibility for diagnosing the needs of the pupils assigned to him and for meeting those needs in whatever way seems best. It is important that teachers weigh each alternative carefully and choose the one that is most appropriate in each particular situation, for every child is entitled to the kind of education which will enable him to develop to his full potential as a human being and as a member of a democratic society.

The question of grouping is a pervasive, continuing, and insistent one. It covers a multitude of practices and points of view. The issues involved must be explored whenever school people have to make decisions regarding the grouping of students into classes, the grouping of course into various trackcurricula, the grouping of young people into small schools within a large school unit. Throughout educational practice, students are being grouped and regrouped, classified and reclassified, categorized and recategorized (43:420).

Gone are the days when there was but one standard that the school master expected all students to meet. Teachers are no longer judged by how well they taught the test, but on the results of the whole educational product.

Bradford and Mial have pointed out that the study of groups has come of age as a respectable concern among people who would increase productivity in human endeavor -- in the classroom, the school system, the factory, the international council. It no longer seems necessary to debate whether productivity depends on individual talent or group development. It is recognized that the individual must sometimes work and create alone and that groups can often produce results that no aggregate of individuals could separately achieve. The fear -- that pressure to conform may submerge the individual-continues to be a real one, but it would seem foolish to suggest that individualism can be defended by resisting a serious concern for groups and how they function. Indeed, one of the most important social insights of our day is that the deliberate, conscious study of forces operating in a group can also increase the chances that individual resources present in the group will be discovered and developed (17:147).

Recent concern about grouping is reflected in numerous experiments. Schools are reorganizing traditional grade-level grouping, and teachers are exploring new ways of differentiating instruction through classroom grouping. In view of the increased interest in and study of groups and group dynamics,
the educator must become more concerned with learning groups than he is with teaching groups.

\section*{II. THE PROBLEM}

Statement of the problem. The purpose of this study is twofold: first, to identify those problems classroom teachers meet when organizing groups within the classroom to provide for individual differences in rates of learning, instructional and/or personal needs, and interests; second, to develop some generalizations which are supported by the findings of educational research and experience, and which will give educators some guidance in the area of grouping for instruction.

Importance of the study. Individualization of instruction is a centuries-old idea. Throughout the most recent half century much time, effort, and money have been spent to help counteract the inadequacies of mass education by adapting instruction to the individual differences of learners. Yet, educators today are still struggling with ways and means of reaching a goal long since generally accepted by thoughtful and responsible teachers.

Educators must not seek easy solutions to this complex and difficult problem of adapting instruction to the individual differences of learners. In becoming too conscious of a technique or a device or even a certain broad plan of individualization, there is a tendency of forgetting the purpose for
which the procedure was originated. It is necessary for educators to shift the emphasis from teaching to learning. The teacher's role must be that of planning coordinator, resource person on locating needed knowledge, and consultant in evaluating learnings growing out of the project for each project group and for each individual. By concentrating on learning rather than on teaching, a balance in the two kinds of growth each pupil must experience can be provided: growth as an individual and as a member of society.

Teachers must understand that normal children have a wide range of abilities, that some children are fast learners and that others are slow learners, and that the existence of these differences makes it impossible to organize schools so that groups will be homogeneous. Teachers' energies will be better employed by providing challenging situations within which children may select experiences for which they are ready. Research justifies efforts to adapt the curriculum of the elementary school to each individual child rather than to so-called homogeneous groups.

A mentally healthy child is continually exploring his environment and seeking experiences which fit in with his growth and needs. These seeking tendencies and self-selection of stimulating materials in the environment are basic for learning. Pacing is the teacher's responsibility for providing each child with the materials and experiences at a tempo that assures success at his stage of maturity.

There would be no way to individualize instruction if children were not assembled in groups. The group provides more than background for the instruction of the individual; it gives meaning and substance to the individual effort. Whenever individuals are brought together for any purpose for any length of time, some kind of social structure will emerge (47:84). Individualization occurs as individual tasks fit into the cluster of group activities. The role of the individual is most productive in groups where the role of the teacher is such as to lighten progressively the pupil's dependence on the teacher (31:211-217).

Obviously there are learning experiences which the child can have only in group situations, and these are universally held to be essential to building character, teamwork or leadership, effective and correct human relations, and participation in complex and purposeful group activities. Knowledge and skill are not enough; it takes wide and diverse experience in the application of knowledge to produce the mature and educated individual. Both purpose and value derive from social ends.

Educators must, therefore, have an awareness of the important learning experiences to be gained from group situations. It is important that they have a knowledge of the methods which will best provide these situations. This study is designed to give the educator guidance in providing for those learning experiences which can be gained only in group
situations or those learning experiences which can be effectively and/or efficiently achieved in the group situation. The writer believes that teachers should face the facts regarding individual differences in a constructive way and adjust their habits of teaching to practical circumstances. It is the purpose of this thesis to show that this is possible and that the experience can, for the teacher, be the cause of a great new renewal in his outlook on teaching.

Procedures used in the study. A questionnaire was given to fifty-four classroom teachers enrolled in a summer school class at Central Washington State College in 1963 entitled "Individualizing Instruction" (see Appendix G). The questionnaire was used to determine those problems classroom teachers meet in organizing classroom groups to provide for differences in rates of learning, instructional and/or personal needs, and interests.

This particular class was chosen for the survey primarily because of the nature of the group itself and the nature of the instruction presented. The class was large enough to include persons with a wide sampling of experience in organizing classroom groups. It included teachers representing many school districts in the Northwest and Alaska. On the basis of their enrollment in this particular class--designed to give teachers insight into the philosophy and methods of individualizing instruction--and on the basis of their dis-
played interest and involvement in the class, the investigator concluded that the members of the class were concerned with the individual differences among students and could indicate problems met in providing for these differences through use of classroom groups which would be representative of those problems confronting many teachers.

The information obtained through the use of this questionnaire was summarized and restated in the form of a generalized question: How can the teacher utilize his time and energy as well as his material and human resources in order to meet the instructional needs of all the pupils in class?

The author then reviewed pertinent professional literature related to this question and attempted to make some generalizations, supported by research and practice, which could be used to guide educators in the solution of common problems related to grouping. In order to make this guide as practical as possible, the writer has suggested some specific procedures for organizing classroom groups and for conducting effective group work in the classroom.

Organization of the study. This study is organized as follows:

Chapter II consists of a review of the literature related to the historical development of organizational plans designed to meet societal and individual needs.

Chapter III presents a rationale for the use of classroom groups. A review of the literature indicates the effec-
tiveness of grouping plans which have received widespread attention from educators. This chapter also discusses the underlying beliefs that the proponents of flexible classroom grouping practices see as basic for their use. Consideration is also given to the effects of classroom groups on the social and intellectual development of the individuals in the classroom.

Chapter IV includes those procedures, as indicated by research and practice, for best meeting the problem of classroom grouping -- the utilization of time, energy, and resources in order to provide differentiated instruction to meet the specific needs of all groups and all individuals within the classroom. The first three procedures in meeting this problem -- determination of educational priorities, flexible scheduling, and flexible group arrangements -- are basic. They are conditions essential for active group work and without these provisions the subsequent proposals would lack effectiveness. The order in which these proposals are presented is not necessarily related either to their importance or to the chronological sequence in which the teacher may expect them to appear. They are, however, equally important aspects relating to the solution of the basic problem facing teachers in organizing classroom groups.

The proposed conditions and procedures in Chapter IV are limited to those relating to the problem of grouping for instruction which concerned the selected sampling of class-
room teachers at Central Washington State College. Using this problem as the basis, the writer describes (1) ways to determine educational priorities, (2) how to adopt a flexible schedule, (3) the importance of cross-groupings and of flexible groupings, (4) methods by which non-teaching tasks may be eliminated or reduced, (5) the utilization of modern equipment to put the teacher in more places within the room at one time, (6) ways to reduce the need for daily preparation of consumable worksheets and specialized assignments, (7) methods to simplify record-keeping, (8) techniques by which to share the responsibility for classroom management with pupils, (9) procedures to help pupils determine their own goals and to plan their own learning experiences to meet these goals, and (10) ways in which to enlist the aid of the parents in providing supplementary learning experiences.

Chapter \(V\) presents a summary of those principles and procedures which appear to be of most importance to educators as they face the problem of providing for individual differences in the classroom. This chapter also includes a list of some of the unanswered questions which may warrant further research.

An operational approach. In this report, the author suggests a set of working principles or techniques to assist the classroom teacher in meeting the individual differences in a class through more effective use of classroom grouping. The use of these principles might be defined as an operational approach to classroom teaching.

Good leadership is experimental. It assumes that ideas and action can be tested and that, by analyzing their mistakes groups can learn to function better. The leader, then, is also a group trainer; for he is leading in such a way that the group not only takes effective action but also learns from this experience how to take even more effective action next time. Competence in leadership means understanding and a skill in using the experimental approach (63:77).

It is the writer's belief that one of the chief rewards of teaching is finding better ways to teach. It is hoped that this guide will encourage other teachers to search for better methods of teaching through the use of the operational approach.

\section*{III. DEFINITIONS OF TERMS USED}

Definitions of terms used. The meanings or definitions attributed to specific educational terms in this paper are those used for the corresponding terms in

Good, Carter V. (ed.). Dictionary of Education. New York: McGraw-Hill Book Company, Inc., 1959.

\section*{CHAPTER II}

THE HISTORICAL DEVELOPMENT OF ORGANIZATIONAL
PRACTICES DESIGNED TO MEET SOCIETAL AND INDIVIDUAL NEEDS
I. EDUCATION REFLECTS A CHANGE

IN THE PHILOSOPHY AND PURPOSE OF SOCIETY

The educational system of a society reflects the controlling philosophy and purpose of that society. In the united states, a system of free, universal, public education has emerged in support of our commitment to democracy. This educational system rests, in part, on the continuing belief that intelligent self-government requires an educated citizenry, and that all people must have access to equal educational opportunities (52:49).

The schools have changed as the nature of society has changed. They have changed in program, in methods of instruction, in facilities, in organization to support program and purposes. A historical look at these changes as they have affected the schools will reveal that school organization has followed the general pattern of basic changes of national philosophy and social purpose in American education.

Organization of the early schools. School organization was in its simplest form in the dame school. These were
one-teacher, one-group, one-room types of schools. Instruction was largely based upon a "read-recite" concept, and the measure of accomplishment was the ability to "read" certain passages. There were generally no special buildings or facilities provided for this type of schooling (52:50).

Changing needs brought modifications to early school organization. As numbers grew and sizes of groups increased, it became evident that one "teacher" could not handle the larger groups of children. In response to the need, a system of monitors was developed. Under this plan, small groups of youngsters were instructed by pupil assistants who had already been taught their lesson by the master. Later refinements of this plan led to the crystallization of what came to be known as the Lancastrian system, a refinement of the monitorial school, which enjoyed widespread use and popularity during the latter part of the eighteenth century and the first part of the nineteenth. However, the expansion in the size of these schools, the growing shortages of qualified personnel to manage the program, the fact that some assistant teachers were finding it necessary to have longer periods of time in which to work with their groups, and the great increase in subject materials to be taught to these children, all combined to lead to the next major step in school organization (14:15).

The appearance of the graded school reflected the need of the times. In 1848 Philbrick created the Quincy Grammar

School in Boston. "This particular development has had an impact on elementary school structure greater than that of any other single development in school organization" (52:51). The movement was slow to spread at first, but by the latter part of the nineteenth century it was the prevailing method of elementary school organization throughout the nation. It was a structure in harmony with the spirit and need of the times -- that schools should provide programs of uniform instruction in which materials could be arranged in standard patterns of grade levels and pupils could be neatly categorized into groups, based upon their yearly progress through a succession of levels of difficulty.

\section*{Instructional plans designed to correct the faults of} the graded school system. After a number of years, objections to the graded school system began to spring up. These objections grew out of concern over such things as: the alarming increases in the numbers of non-promotions and the failures, the apprehension that brighter pupils were being restricted to unchallenging situations, the number of dropouts in the upper grades, and the overcrowding in the lower grades (14:35).

As a consequence, some revisions and reorganizations of the graded system were attempted during this same era. In the latter part of the nineteenth century a welter of innovations and improvisations, all seeking to correct the faults of the graded school system and to get at some of the
inherent weaknesses of this system, made their appearance. The St. Louis Plan, first introduced in 1868 by W. T. Harris, sought to reduce the rigidity of the graded structure by reclassifying students at six-week intervals (19). The Pueblo Plan, 1888 to 1894, encouraged individualized progress. All children studied all units but progressed through them at their own rate ( \(60: 84-85\) ). Both the Cambridge Plan (1893) and the Portland Plan (1897) permitted bright students to move more rapidly in a double-track system \((40,41)\). The Batavia, North Denver, and Santa Barbara Concentric plans developed in 1898 also recognized individual differences and sought to make provision for them within the limitations of graded structure (4, 8, 18).

These and other schemes are not always seen as attempts to break down vertical, graded structure. But they were designed to modify the effects of grading by essentially helping students of varying abilities to move ahead unhampered by uniform grade expectations. They were a product of the creative thinking of their time and paved the way for the broad-scale attack upon lock step that characterized the non-graded school.
II. ACHIEVEMENTS IN THE SCIENCE OF PSYCHOLOGY INFLUENCED EDUCATION

New theories of learning raised questions regarding the content of the school curriculum. In the early 1900's, the development of educational psychology as a science in its
own right, turned the focus from introspection as a basic research technique to the objective study of man as a human organism. By 1914 Thorndike had published the third of his volumes on educational psychology. Impetus toward objectivity in psychological research also came through the work of John B. Watson and other behaviorists. This period also saw the early investigations of transfer of learning by William James. These and later studies by Woodward, Judd, and others challenged the mental discipline concept and raised questions regarding what learnings were actually of most worth (7:16).

Studies of child development provided norms by which to compare children. In the early 1900's child development was established as a separate research area. Although the studies of child development go back at least to the 1850's these studies increased greatly in number and scope through the 1890's and early \(1900^{\prime}\) 's. By 1925 the first of Gesell's studies of young children appeared. From that time, studies providing norms against which to look at individual development accumulated rapidly. These studies resulted in a concern for the unique growth patterns of individual children (7:16).

The measurement movement focused attention on individual differences. The measurement movement had perhaps the greatest effect in bringing about a recognition of the need for schools to adapt their instructional programs to the
individual differences of the learners. Some important aids to objectivity were provided by the rapid growth of this movement. Rice's pioneer work in spelling was published in 1897. By 1916 achievement tests were available for most of the fundamental skills. During this same period, Binet's pioneer work on the development of intelligence tests was done, and in 1916 Terman brought out the first Stanford revision of the Binet-Simon scale. By the end of World War I, various group intelligence tests were in use (7:17).

There was a great deal of criticism of these new tests from those who were convinced that intelligence was, by its very nature, something which could not be measured quantitatively. Many psychologists, however, saw that something was being measured, something which made possible predictions of considerable value in educational planning. "The predictions were far from perfect; it was never claimed that they were perfect; but they were more accurate than any judgment which could be made without the tests"(70:62).

Therefore, it seemed clear to many psychologists that individual differences in learning capacity and in many other traits were measureable and were so great in their magnitude as to far outweigh in importance the similarities which characterize all members of the species (70:62).

These psychologists concluded that mind was a process ultimately explainable in terms of natural law and that it was important to study the mind of man in the same way other
natural phenomena was studied -- through the application of the scientific method (70:62).

Developments in educational psychology had an effect on education. The psychological discoveries of the first decade of the present century greatly influenced educational practice. The doctrine of "formal discipline," the doctrine that certain classical studies were particularly valuable in their ability to "strengthen the mind," was rejected. The mind was no longer considered to be an entity, but was then looked upon as merely a name for a combination of processes, or activities, of the organism (70:63).

These developments caused many educators to recognize and emphasize the importance of gaining an understanding of the individual child, to emphasize the importance of a knowledge of the learner, his needs, his interests, his capabilities and his limitations, and the ways in which he differs from other learners.
III. CHANGES IN EDUCATIONAL PHILOSOPHY INFLUENCED THE SCHOOL PROGRAM IN THE EARLY TWENTIETH CENTURY

In this first quarter-century there were also theoretical statements that called for a fresh look at the nature of the learner, the world in which he lived, and the learning process.

\section*{Dewey's DEMOCRACY AND EDUCATION pointed out the need} for expanding social situations in the schools. The publication of John Dewey's Democracy and Education was an influential event in the early twentieth century. By 1916 Dewey had come to be widely regarded as a leading educational spokesman and whatever he wrote received widespread attention. Dewey's theory of democracy met the needs of the society of that time-a society in flux, a society of immigrant groups engaged in a dramatic reshuffling of customs and allegiances, a society whose intellectuals sensed a loss of community and a driving need to rebuild it. He stated that democracy prevails as there are more and more varied points of shared common interest among the various kinds of groups that go to make up the society, and as there is ever freer interaction and mutual adjustment among these groups. "A democratic society is thus committed to change, organized as intelligently and as scientifically as possible" (27:89).

Dewey formulated the aim of education in social terms, but he was convinced that education would read its success ultimately in the changed behaviors, perceptions, and insights of individual human beings. Dewey wanted education constantly to expand the range of social situations in which individuals perceived issues and made and acted upon choices. He wanted schools to inculcate habits that would enable individuals to control their surroundings rather than merely adapt to them (24:123).

Dewey believed that a democracy could not flourish where there was a narrowly utilitarian education for one class and a broadly liberal education for another. He believed that democracy demanded a universal education in the problems of living together, one broadly humane in outlook, calculated to enhance social insight and interest (24:125).

Other theoretical statements which influenced school programs. In 1920 Dewey published Reconstruction in Philosophy, one of the most thorough early statements of the experimentalist position, to the effect that the source of values lies in human experience and that values can be derived and tested by research techniques similar to those used in studying other aspects of experience. In 1925, another new influential book was published -- Kilpatrick's Foundations of Method. These theoretical statements tended to focus attention on the world in which the learner was eventually to live as an adult, and not to any great extent upon his immediate needs (7:20).
IV. INSTRUCTIONAL PROGRAMS INFLUENCED BY CHANGING PHILOSOPHICAL AND PSYCHOLOGICAL THEORIES REGARDING THE PURPOSE OF EDUCATION AND THE NATURE OF THE LEARNER: 1900-1930

The twentieth century brought forth another period of experimentation with the structure of the school. These experiments were influenced by changing social, economic, and
industrial needs, as well as by new philosophical and psychological views toward education and learning, and were intended to promote individualization of instruction. These efforts continued to reflect dissatisfaction with the graded-school concept. Here, too, was a continuation of the influence of changing social, economic, and industrial needs and demands. During this period the United States was moving rapidly into the era of industrialization, creating the need for a larger supply of skilled labor, absorbing the impact of vast immigration in the melting pot milieu, and giving recognition to the relative importance of behavioral skills and social attitudes as legitimate elements in a program of public education. As a consequence of these newer social and theoretical forces and of the continuing feeling that the graded school was inadequate, this period witnessed the development of the following plans for the school structure:

The Platoon School. In 1900 the Platoon School was developed by William A. Wirt in Bluffton, Indiana. This plan sectioned children into two groups or platoons so scheduled as to have one group studying fundamental subjects in classrooms while the second group used special rooms for activities. This was sometimes referred to as the "work-study-play" program and had, as a part of its underlying motivation, more economical use of the school plant. In 1908 Wirt also developed the Gary Plan, which was essentially a continuation of
the original Platoon School. It was the first permanent plan of platoon organization and represented a refinement of the principles first tried out by Wirt in Bluffton (21:43).

The Winnetka and Dalton Plans. Two similar plans, attempting to allow each child to master the successive units of work in the fundamental subjects at his own pace, became known as the Winnetka and Dalton Plans. The Winnetka Plan followed the work of F. L. Burk in San Francisco State College training school (1913-1924) and was developed by Carleton W. Washburne in 1919. The basic classroom unit in grades one through six was heterogeneous with individual progress personalized by the use of record forms and "goal cards," which were used to encourage optimum growth by each child. This plan also included provision for cultural and creative experiences in group settings (66:214).

The Dalton Plan, first developed by Helen Parkhurst in 1919, was based upon individualized progress, group interaction and a time-budgeting "contract plan" to facilitate individual achievement. Subject matter was grouped into two component parts, the academic and the physical-social. The former was presented predominately by individualized instruction, the latter by the whole-class method. The work for each grade was laid out in the form of "contracts," which described work to be done over a period of weeks (57:83-93).

The Detroit \(\mathrm{X}-\mathrm{Y}-\mathrm{Z}\) Plan. This plan developed in 1919 was essentially an ability grouping device for what, in effect, be-
came a three-track plan. Pupils were placed in one of three groups on the basis of intelligence test results. This plan permitted some children to finish eight years of elementary school in seven, while others (on a slower track) might take up to nine years to complete the same task (22:45).

The Cooperative Group Plan. The Cooperative Group Plan was originally conceived by James F. Hosic in the 1920's. This plan calls for teachers to work in small cooperative groups under a group chairman. This might be considered a forerunner of newer team-teaching concepts. It provided for a group of teachers to work together, each offering one part of the curriculum but all of them trying to coordinate their efforts (45).

The early programs failed to solve the problems inherent in the graded-school concept. In providing an instructional program for all the children of all the people, these early programs tended to focus their attention only on the mythical "average" child. In the first half of the twentieth century, as educators became sensitive to the problem of providing for individual differences, there was a widespread effort to move in the direction of individualizing instruction. These efforts were sincere and honest in motive and purpose but were confounded by the constant increase in the number of children to provide for. Therefore, while the theoretical approach might have been sound, the sheer range of the job to
be done within the dimensions of limited funds, personnel, and facilities, soon made such campaigns somewhat futile (52: 57) .

These early programs of "individualizing" instruction also fell short in another fundamental quality. All adjustments which these innovations sought to provide were within the single dimension of the rate of learning. This limited approach failed to take into account the broad range of the teaching-learning situation which also includes such things as varieties of interests, needs, backgrounds, talents; readiness; motivation; materials; and teaching effectiveness.

Another shortcoming in many of these early programs was their tendency to present subjects in isolation without relationship to other curricular learnings. In addition to the concentration of effort on adjustments in rate, however, the essential weakness appears to have been the dedication to a single premise that subject matter could be detailed in advance for all children. This had the effect of ignoring the realities of human differences. "It resulted in efforts to fashion children to the program of the school rather than in efforts to provide a program which could meet and serve the enormous range of variances among children" (52:59). This is not intended to suggest that there are not certain bodies of common knowledge, skills, and attitudes for all children alike, but it does say that all children cannot learn all things in a standard way and at the same time.

It is a fact that of all the early attempts to solve the problems inherent in the graded-school concept, not one plan has stood the test of time. Not one movement to modify the graded plan actually took hold, and each, in turn, fell by the wayside simply because it did not come up with the necessary solutions to the problems.
V. ORGANIZATIONAL PATTERNS DEVELOPED SINCE 1930 FOR THE PURPOSE OF PROMOTING DIFFERENTIATED INSTRUCTION

IN ACCORDANCE WITH INDIVIDUAL DIFFERENCES OF PUPILS

Considerable work on adapting instruction to individual needs has been done in the past three decades. It is important to consider some of these efforts to improve school organization.

The non-graded Elementary school. The non-graded Elementary School was the first organizational plan to make a broad-scale attack on the lock step structure of the graded school. The non-graded school abandoned grade levels as such and created a situation in which children could work together in an environment conducive both to individual and group progress without reference to precise grade level standards or norms. This plan was designed to implement a theory of continuous pupil progress, whereby the reality and extent of individual differences are at the very core of the teaching effort.

The modern non-graded school was born at the primary level. It is difficult to pin down a definite date for the
emergence of the modern non-graded school. In 1934 a plan was in operation at Western Springs, Illinois. This plan, known as the "flexible progress group system," has since been discontinued (68). The plan begun in 1942 in Milwaukee appears to be the oldest of those now in effect (49). Except for a few early efforts, recorded attempts at non-grading have been in existence only since World War II (51:222).

Non-graded programs have been given various labels, the most common being: (1) the non-graded school, (2) the ungraded school, (3) the flexible primary unit, and (4) the continuous growth plan. Basic to all these programs is the concept of continuous growth. Thus a child does not fail a grade and subsequently repeat from the beginning the work of that grade. Instead, the main objective of the program is to take individuals from where they are and progress as fast and as far as the individual is able during the time that he is enrolled.

The Dual Progress Plan. In the Dual Progress Plan the students progress in language arts, social studies, and physical education according to the usual grade system, while they progress in science, math, and the arts on a non-grade-level basis. Students spend one half the day in an ability-group class of his grade mates, studying language arts and social studies with a core specialist teacher, and physical education with a specialist in that area. The other half of the day is spent in different cross-graded, ability-grouped classes in
math, science, and the arts under different specialist teachers (42:89).

Multi-grade classes. Generally, combination classes are found in smaller schools where there are not enough children to justify a separate room and teacher for each grade. However, in recent years some large schools have deliberately arranged multi-age, multi-grade classes for educational and social reasons (4:245).

Social Maturity Grouping plans. Some schools have used Social Maturity Grouping plans in organizing classroom units. This plan suggests that grouping be heterogeneous, but that children be grouped when they leave kindergarten, for example, into three first grades on the basis of social development and friendship patterns rather than on the basis of ability or sheer chance. This plan implies the exercise of professional judgment and the use of available test data in assigning students to "well-balanced" groups, with the most mature and the least mature assigned to separate rooms (62:315).

The split grade or "hyphenated" grouping plan. The split grade or "hyphenated group" has been developed to promote differentiated instruction to meet the individual differences of pupils. This pattern is one enrolling children from two and occasionally three grade levels in one class. This grouping plan, like the multi-grade grouping plan, is
designed to increase the spread and speed of learning through a grouping of grades (62:315-16).

Inter-classroom grouping plans. Some schools have developed the idea of grouping children not within the classroom but within a given grade or grade range for instruction in a particular subject to allow for individual differences. Frequently several grade levels are involved in this temporary inter-classroom grouping (59).

Departmental grouping plans. Departmental grouping is another plan used, primarily in the secondary school, to promote specialized instruction in a specific subject area. Departmental teaching is not a recent innovation in elementary school practice. It began toward the close of the eighteenth century at which time there came into prominence the "departmental school." Since the day of the "departmental school," departmentalized teaching in the elementary schools has passed through a variety of stages, sometimes having disappeared almost entirely from school practice (as was true between about 1850 and 1900), sometimes being highly praised, and sometimes condemned vigorously (55:105). Another grouping plan similar to inter-classroom grouping and to departmentalized grouping is inter-grade ability grouping. This plan, however, is limited exclusively to shifts made within a single grade (62:316).

The Intra-subject-field grouping plan. This plan is used most often at the junior high and especially the senior
high levels. For example, at the New Trier Township High School in Winnetka, Illinois, a student may be in an "advanced ability" group in mathematics and in a "middle ability" group in English. As many as five levels have been used for such grouping in this particular school (62:314).

The "vestibule" grouping plan and the Woodring Plan. Two other grouping plans are reminiscent of the multipletrack proposals of the early twentieth century. These plans are aimed at helping both the slower and faster pupils. The "vestibule" grouping plan makes it possible for certain children without repeating or failing to spend one and one half years in the first grade, while other children may spend only one year. "Vestibule" groups have also been used at the threshold of high school to help slow learners and children with cultural disadvantages increase their prospects of success in the secondary school (62:314). The Woodring Plan was advocated by Paul woodring in 1957. This plan divided the K - 8 organization between an ungraded primary school and a middle elementary school. The more able children spend as little as two years in the primary, moving to the middle school as early as age seven. The less able might remain in the ungraded primary through age nine. Woodring created no entirely new plan, but developed a synthesis of the ungraded, multiple track, homogeneous, and individualized concepts (70: 143-58).

Grouping plans to meet the needs of the intellectually gifted. In schools with large enrollments, there are often special groupings for high I.Q. children which go beyond the provisions of mere ability grouping and which segregate these high I.Q. pupils in special programs or even in special schools or centers. The "Self-Realization Room" is one of many plans designed to meet the needs of intellectually gifted students. This plan is based on the assumption that the gifted will be placed in the regular classroom but will also be free to supplement their personal-intellectual development under expert guidance when they have completed basic work with their peers and age mates (62:317).

Grouping plans to meet the needs of the slow learning or mentally handicapped child. The "Opportunity Room" is one of many grouping plans used by schools for meeting the needs of the slow learning or mentally handicapped child. This plan calls for special ungraded groups with small teacher-pupil ratios.

The Newton Plan and the Rutgers Plan. These two plans were recently developed to meet the individual differences of students at the high school level. The Newton Plan dates back to 1957, when the staff of Newton High School in Newton, Massachusetts, began to question some of the traditional practices in teaching English courses. The plan itself was an experiment in making better use of the teaching talents in the high school. Primarily it utilizes large classes of fifty to
two hundred students for certain subjects. These large classes are taught by teacher-lecturers. This plan also uses teacher-researchers (classroom teachers with special ability in curriculum development), and "contract-correctors" of papers. This plan seeks to apply what is known about how pupils learn in the context of the resources as well as the problems of the mid-twentieth century (15).

The Rutgers Plan, developed in 1959, is a program designed to better meet the individual needs of English students in spite of increasing the class sizes and numbers of pupils met by the high school English teacher each day. This plan calls for the employment of specially qualified collegeeducated housewives as teacher aides. These aides direct free reading periods, administer tests, and correct the majority of written assignments. This frees the teacher of his class duties one day a week to meet with students who require individual attention. Freed from the pressures of increasing numbers of students and numbers of papers to correct, this teacher can devote more class time to the discussion of literature and student compositions. This plan utilizes "selfcorrecting homework" for drill in the fundamentals as another means of freeing teachers from the pressures of time and numbers. (28)

The Trump Plan. The Trump plan is another plan for meeting individual differences at the secondary level. This
plan emphasizes independent study, small-group discussion, and school plants oriented to individualized work. These schools using this plan are furnished with cubicles for independent work, which consumes about forty per cent of the student's time. The plan also includes large-group instruction to care for certain common matters, thereby freeing the staff time for seminar groups of about twelve students (64).
VI. GROUPING PLANS DESIGNED TO MEET THE WIDE RANGE OF DIFFERENCES FOUND AMONG STUDENTS IN A CLASSROOM

Once a class has been established, educational history has shown that it remains for the teacher to create a constant succession of subgroupings within that class for purposes of fostering individualized learning opportunities. Although it is still possible to find classrooms where practically all teaching involves the same experiences for the entire class, many elementary and secondary school teachers make frequent use of subgroupings that provide for differentiated interests, needs, work and study habits, friendships, and learning rates of the class members. Sometimes membership in these subgroups is fairly permanent. Other groups may be highly informal or temporary.

Intra-classroom grouping plans. Teachers have made use of various schemes for grouping within the classroom for many years. Primary teachers, especially, have created two
or more groups when teaching reading. As a rule, intraclassroom grouping has been "part-time ability grouping," designed to permit the teacher to work with youngsters of roughly comparable ability (62:316).

Recently, teachers have used to a greater extent pupilteacher planning as a basis for intra-classroom groupings. Such grouping involves the creative or emergent planning of experiences with children in such ways as will eventuate in the selection of various pupil activities to be developed and pupil responsibilities to be carried out. Teacher guidance is essential to this type of planning to insure that children volunteering or assigned to these temporary groupings are challenged by the work, yet are not frustrated by a too difficult task.

Self-selection grouping plans. This plan is closely related to the grouping plan based on pupil-teaching planning. Self-selection grouping implies the creation of a rich diversified environment providing a variety of activities or projects from among which children can "self-select" work in which they can engage individually and/or in groups (62:316).

Teacher-planned classroom groups. Other grouping plans commonly used by teachers at the elementary and the secondary levels include: (1) the "buzz" group which is formed quickly to meet an immediate purpose and to be of short duration, (2) the "job" group which is organized to
perform a particular job or meet a particular instructional need of two or more children, and (3) the "work-study" group which is organized to facilitate deeper and broader exploration of various aspects of a problem or unit (43:421).

These, of course, are only a few of the kinds of classroom groups teachers have used to facilitate individualized instruction within the classroom. Research studies indicate a growing emphasis on the use of classroom groups as a means of providing a flexible organization within the classroom for the purpose of adjusting the curriculum to the needs, abilities and interests of class members.

\section*{VII. CONCLUSIONS}

This chapter has presented a historical review of some of the major types of approaches to pupil grouping which have been developed over a long period of years in the United States. It should be noted that the variety and ingenuity of these plans are no greater than the difficulties they sought to correct.

The first fifty years of the present century saw the emergence of a new view of education. This view of education evolved as a result of theoretical statements made by the influential educators of the time and from the development of educational psychology as a science in its own right. This view emphasized the importance of a knowledge of the nature of the learner, the world in which he lives, and the learning process.

The inadequacies of the early organizational patterns became more and more apparent as knowledge about children and learning increased, and as society made new demands on the school.

Most of the historically significant plans for dealing with human individuality within the organization of the school have been related to grouping for instruction.

The importance of recognizing human individuality in the structuring of public education has increased in recent years. The problem of how best to recognize individual differences is an old one but is receiving renewed attention.

This historical review indicates that the annual placement of pupils into relatively permanent classes or sections was until quite recently the only significant grouping decision many school staffs were called upon to make. It appears that in the l960's it would be a rare school where a considerable amount of subgrouping and reallocation did not take place. In recent years the trend has been away from fixed class groups toward fluid, flexible patterns.

\section*{CHAPTER III}

\section*{RATIONALE FOR CLASSROOM GROUPING}
I. RESEARCH DESIGNED TO EVALUATE THE

EFFECTIVENESS OF GROUPING PRACTICES

Grouping practices have been formulated and adopted by many educators without their consulting the available research as to the effect of these practices on learning.

In analyzing research findings, it is important to recognize that the research must be related to a particular value orientation. "This orientation is the preservation and promulgation of the democratic way of life whose major feature is the importance of the opportunity for self development for every individual" (30:429). The research on the grouping practices then should uncover those practices which are supportive to developing democratic personalities and to expose for what they are those practices which are inimical to democratic processes.

This section, then, is concerned with the identification of those grouping practices which research indicates are supportive to the development of democratic personalities and individual potentialities.

Research studies related to ability grouping and achievement. Perhaps the most commonly practiced plan for grouping in schools is ability grouping, sometimes erroneously referred to as homogeneous grouping. Grouping of this type customarily places children in a class according to group intelligence test scores or some other standardized test score. One of the primary motivations for practicing ability grouping has been the rather generally accepted assumption that children, especially bright children, learn more if they are grouped according to ability and taught as a separate group.

Studies carried out by Abrahamson, Shane, and Davis do not support the generalization that ability grouping in itself produces improved achievement in children. Improved achievement seems rather to result from the manipulation of other complex factors; curriculum adaptation, teaching methods, ability of the teacher to relate to children, and other subtle variables (1, 62, 26).

Davis quotes Coxe:
In a functioning and interacting group, pupils make greater gains in subject matter mastery under ability grouping than under other grouping plans, provided there is differentiation of the subject matter to be learned (26:214).

Davis concludes that it is the individualization of the curriculum for the variability in any group that contributes more significantly to academic progress than the criterion used to comprise the group (26:214).

Recent research by Husen and Sevson seems to indicate that ability grouping actually may be detrimental to children in the average and lower ability groups. They say that the children appear to suffer from the deprivation of intellectual stimulation when brighter children are removed from the class; and, conversely, the brighter children do not appear to suffer when left with the average and lower ability students at least through the elementary years (46).

Studies by Bettleheim and by Husen and Sevson indicate that ability grouping at an early age seems to favor unduly the placement of children from the higher socio-economic class in higher ability groups (13, 46).

No matter how carefully screening devices are used in homogeneous groupings, the socio-economic factors play a great part. Ultimately the children from the higher level economic homes will be placed in higher groups. This may not be due to their greater ability but to the fact that they have had greater opportunity to develop these talents (25:20).

Abrahamson's study does not support the prevalent assumption that college achievement is improved by the ability grouping in the high school. Improved achievement in college as the result of high school training is seen as a function of other complex factors other than ability grouping (1:169-174).

Research studies related to ability grouping and socialpersonal development. Luchins and Luchins explored 190 children's attitudes toward being sectioned in terms of ability. Interviews with these children showed that they felt their parents wanted them to be in a top ability group. Moreover,
if they were in a bright group they preferred to be there even if they disliked the teacher. Children in two low ability groups were consistently willing to have a poor teacher if only they could be in a "bright" group. The Luchinses felt that their interviews clearly showed that children classed as "dull" feel stigmatized and that the "bright" ones are snobbish with respect to their top group status (50).

This study stresses the need for educators to look at any grouping practice with respect to the influence it may have on the personal and social development of students.

Ability grouping and the reduction of the range of differences. Studies show that grouping by ability only slightly reduces the range of differences. The variability in achievement in grades that have three ability groups in each is about 83 per cent as great as in normally organized groups. In grades having two ability groups each, the variability in achievement is about 93 per cent as great as in normally organized groups. This difference in range of abilities offers only slight assistance to the teacher in reducing the range of individual differences in his classroom (71:8-9).

Heterogeneous grouping practices. Heterogeneous grouping is essentially the absense of a structured grouping plan. Individual differences may be met by program enrichment, acceleration, intra-classroom grouping, and/or interclassroom grouping as in reading.

Homogeneous grouping has been less widely used in recent years than it was two decades ago. Both teaching methods and materials have been developed that permit more successful adaptations to a fairly wide range of ability within a class.

Arguments have been advanced for and against heterogeneous grouping. Those who are against heterogeneous grouping say that teachers cannot handle wide ranges of ability. They contend that those extreme cases at both ends of the class are neglected and that the great variety in background and ability in heterogeneous classes prevents a feeling of "belongingness" (71:9).

Those who favor heterogeneous grouping say that ability grouping does not eliminate wide ranges. They point out that heterogeneous grouping helps to provide a more normal social situation for children of elementary age.

It encourages an atmosphere in which all children are given the opportunity to work with others of a varied and diverse ability. In this way the educational experience of each child becomes wholesome. He better realizes that the contributions of others, different from him, can make to the world's work (37:35).

Proponents of heterogeneous grouping emphasize the validity in the objection of parents that their children are stigmatized by grade "labels." They further view the placement of children in classes reserved for low achievement as a barrier to social development (71:9).

The perpetuation of our society depends on the ability of all to think, answer questions and solve problems together. It is the responsibility of general education to develop common qualities of citizenship.

However, mutual respect must be developed and individual differences utilized as one means of developing richer and deeper insights into the solution of problems of living and working together. This can hardly be accomplished in a homogeneous group (25:21).

Research related to sociometric grouping. Sociometric grouping implies the use of sociometric tests as the basis for organizing children into classroom units and/or for the grouping of children within the classroom. According to Alt, this plan, designed to organize children into classroom units and to enhance group morale, was used with some success in a Pueblo, Colorado school (2).

In an experiment with 170 children at the sixth grade level, Dineen and Gerry sought to ascertain whether sociometric procedures could be used to improve human relations within the classroom. Socio-economic classroom cleavages, they found, were reduced or weakened but not eliminated by sociometric grouping (29).

Research related to inter-class grouping practices. In order to allow for individual differences, some schools have developed the idea of grouping children not within the classroom but within a given grade or given range for instruction in a particular subject field (commonly reading). This type of grouping requires that all teachers in grade five, for instance, schedule reading at the same hour. Then each fifth grade teacher works with the children who remain in or come to his room (on the basis of reading ability) for instruction in reading.

Russell concluded from the results of a comparative investigation of the achievement of students in regular class groupings and inter-class groupings that inter-class ability grouping results in no significant change for children thus grouped (59:468).

More intrinsic factors in the instructional programs such as materials used, teacher's knowledge of the individual children and efficient and democratic classroom procedures continue to be more important than any external arrangement for reading instruction (59:470).

Research studies indicating a need for flexible classroom grouping practices. Daisy M. Jones' study of 228 children, divided so as to provide a control group, suggests a possible solution to the homogeneous versus heterogeneous controversy. She was concerned with the nature of instruction rather than with grouping as such and compared the outcomes of individually planned teaching with a prescribed curricular program. Children in the flexible-programs group, whether bright, normal, or dull, made more academic gains than those in the formal program (48:270-1). This study seems to indicate that perhaps an able teacher, given freedom to work creatively, is more important by far than any mechanical scheme however ingenious.

If given such a program each pupil will find himself in a learning situation where he can succeed, where he is not repeating tasks already mastered, and where he can compete favorably with his fellow workers, where he has something to contribute to the group, and where he can gain through participation in the group. This type of teaching-learning situation eliminates failures as such and breaks down any artificial grade barriers.

Gaps in learning are eliminated and repetition becomes unnecessary. Education becomes a series of progressive steps toward maturity (48:271).

A later study by Homes and Harvey supports the conclusions made by Jones. In comparing permanent and flexible arithmetic groupings they concluded that an effective teacher, one sensitive to pupils' individual needs, was a more influential factor than the grouping scheme they devised (44:222).

Davis gives added support to these conclusions in this statement:

Attention to the process of grouping itself is less important than the type of instruction which is given to the group. However constituted, the result of the instruction is increased diversity, increased unlikeness, not increased homogeneity. The grouping plan cannot mask ineffective teaching. Individualization of instruction is not insured simply by the regrouping of pupils (26:215).

Conclusions. The following conclusions seem to be supported by the research presented in this section:

The findings of research studies made to determine the effectiveness of ability grouping and inter-classroom grouping plans indicate that children are simply too complex to classify neatly. Ability groups have been found to reduce only slightly the range within a section based on any one variable or even on two or three closely related variables. This does not, however, prove that ability grouping is worthless, because cutting the range even twenty per cent may be valuable. But research does indicate that the teacher facing a "homogeneous" group still must plan to meet almost the same total differences as before.

If educators are concerned with the development of democratic personalities and the optimum development of the intellectual capabilities of each student, it is important, then, to consider the implications of the results of research studies on ability grouping related to these aspects. These findings do not indicate that ability grouping contributes to the development of democratic personalities. There is no indication that ability grouping results in significantly improved achievement. In fact, there is evidence that such grouping practices may be detrimental to the average and lower ability groups.

Yet, educators cannot be just "against grouping." The schools have to divide up their students in some rational way and educators are duty-bound to keep searching for ways that yield the best results. Ability grouping tackled some real problems -- problems that haunt every conscientious teacher who tries to fit instruction to each child, in groups that range across enormous diversity.

Research findings offer some "leads" -- not proved perhaps, but enough for a sense of direction. They suggest moving past preoccupation with types of groups and going straight to the individual. In order to move in this direction, the educator must abandon the closed, rigid, formal stratifications and narrow subdivisions of people or subject matter, in favor of open, "roomy" arrangements with a premium on flexibility.

Ultimately, it will be the teacher's problem to plan
for the wide range of abilities, interests, experiences, and backgrounds of the children in the particular class with which he is working. This will mean the adaptation of the instructional methods to the individuals in the class.

The findings of research indicate a need for the use of flexible classroom groups, as one method of adapting instruction to the individual differences found in a classroom. Subtly shifting groups bring each child into high visibility, to be worked with on his own terms. With no flat stratification, no child is always the star, no child is forever derogated to himself; yet differences in ability and need are faced frankly, studied, and served.

The writer feels that it is necessary at this point to establish a personal point of view regarding classroom grouping versus individualized instruction, since recent research indicates a growing trend toward complete individualization of instruction.

Grouping and individualized instruction does not present an "either-or" decision. Pupils assigned to the same classroom are constantly influenced by one another. Even though each child may be using different materials; even though the difficulty of books used may extend over a wide range of levels of readability; even though purposes for each person's reading may vary from reading for pleasure to reading for specific information -- these pupils are not isolated; they are not in solitude. Each child has a fairly
good idea of what the other is doing, how well he can read and think and how responsible he is.

The children in a classroom are cooperative. They work together helping each other clarify purposes, locate materials, handle word-attack needs, deal with comprehension problems, and discuss findings. There is a spirit of competition, but the spirit is different from what is true in a traditional group situation, and this is to be expected. It is vastly different from the unfortunate circumstance that exists in those classrooms where pupils are grouped unwisely and inappropriately. In those situations the negative aspects are a destructive influence and can corrupt the mind and spirit.

All this is mentioned to focus attention on the degree of cooperation that influences a program often defined as "individualized instruction" and a similar one which the writer would define as "flexible-group instruction." In either case motivation for learning and purposes accomplished by this learning reflect the dynamics of a group as well as the interests and needs of the individual pupil.

Perhaps it is in order to present here an explanation of how both types of learning activities are interrelated and how both types of learning have their legitimate place in a sound classroom program and are complementary rather than contradictory.

This inter-relationship between "flexible-group instruction" and "individualized instruction" is shown by Jettye Fern

Grant. In an experimental study of individualized instruction -- the most comprehensive to date -- she defined individualized instruction as "all procedures involved in the particular requirements of the individual pupils in the class" (35:81). She gives additional support to the views expressed by the writer in the following interpretation of the term "individualized instruction" as applied in her study.

Individualized instruction did not mean, necessarily, that the children were instructed one at a time. If only one child in the class, because of his unique needs and abilities, happened to require a particular kind of instruction, then he was instructed alone. On the other hand, when two or more children shared a need for the same learning experience, group instruction often ensured the most economical use of teaching time; furthermore, group instruction frequently was more effective than tutorial instruction in such instances because the children stimulated one another to produce more and better work, and they learned from one another as they participated jointly in the various activities related to the study ( \(35: 81-82\) ).

This indicates a great deal of overlapping between the two practices. Group-directed activities stimulate a great deal of individual thinking and reading and reasoning. Individualized activities include much group work.

It is important, therefore, that educators do not make "either-or" decisions in the selection of classroom organizational practices. The best classroom organization, as indicated by research, is a plan utilizing flexible-group instruction and individualized instruction.

\section*{II. EDUCATIONAL OBJECTIVES WHICH ARE ACHIEVED THROUGH THE UTILIZATION OF CLASSROOM GROUPS}

Before considering techniques and methods of grouping within the classroom, it is necessary to consider the following question: Are there learning experiences and educational objectives which are best met by classroom grouping practices?

This section is designed to present some of the most important learning experiences (as viewed by the proponents of this practice) to be gained from classroom grouping situations. Certain organizational advantages of grouping are also included because of their importance in facilitating these learning experiences and in meeting the needs, interests, and abilities of the learners in groups.

It is important for the educator to look at these learning experiences and judge their apparent values with respect to what is known about the learner and the ways in which he learns. After considering these aspects, the educator must, then, answer for himself these questions: Do the learning experiences gained from classroom grouping practices warrant the time and effort involved in their organization? Can classroom groups provide for the diverse needs, interests, and abilities among the individuals in a class? Only after such consideration is it wise to move into the "how" of grouping practices.
to identify with a group and develop close and varied relationships with other children. By utilizing classroom groups many opportunities are provided for group identification as well as a wide variety of opportunities for the range of relationships considered desirable: Contact with other human beings is by far one of the best resources for confronting pupils with the realities of his world and for aiding him in the interpretation of his world. In the group situation individuals can test and refine their ideas through interaction with their classmates.

Important in the school environment are the opportunities children have for playing and carrying on purposeful activities in the presence of other children and often with their help. When children find ways for working and playing together, they gain their self-identity amidst feelings of solidarity. Children who have experiences in which individual differences are combined in ways that permit both the individuals and their mutually selected groups to gain identity through interaction learn what they never could learn if they were just placed in a group (3:91).

In small groups children can experience the solidarity which comes when different people find ways for working things together, for contributing to strengthen the whole. "Once in a person's history, it is a relationship which is basic to future close association with people" (3:91).

Classroom groups provide situations in which children can practice democratic living. Proponents of this practice believe that small groups are more democratic than other plans of classroom organization, making it possible for even the smallest voice to contribute, giving that person the feeling of importance. Group activity also teaches individuals to be good losers or winners since all members of the group will never be successful in having their contributions accepted by the group (20:103).

Experiences in working with many different groups will help children to appreciate diverse cultures, to value human rights and resources, to accept responsibilities, to protect their rights, and to respect and protect the rights of others. Working with students of differing needs and abilities gives children an opportunity to develop a tolerance and respect for personal differences.

Small classroom groups provide opportunities for the students to reveal what they think, feel, or believe, and to react to the ideas and feelings of others. Through this assessment, children are given a chance to see the implications of their behavior (5:324).

Classroom groups provide ways of meeting the individual child's needs, interests, and abilities. Flexible grouping practices provide conditions which facilitate the adjustment of instruction to meet individual differences. Advocates
of classroom grouping emphasize that it is both possible and meaningful to organize these small groups. They give the teacher an opportunity to see each child as an individual, to see him in a wide variety of learning situations, and to guide his unique development pattern toward maturity (52: 108).

A highly flexible program utilizing classroom grouping offers greater opportunity for the development of each child's interests and abilities than a program in which all pupils study the same subject at the same time.

Classroom groups provide opportunities to develop competence in meeting social demands. Children need to develop attitudes and understandings that bear upon present relationships and upon future functioning as citizens. Those who support the use of classroom groups believe that this practice lends itself to good treatment of the social as well as the individual aspects of education. In addition, they believe these groups are necessary if children, through growth and experience, are to perceive a world of ever wider social, intellectual, and ethical relationships. Groups, they agree, can help the child move into ever widening frames of reference and expand his awareness of people -- all contributions to the growth of a sound personality oriented toward living in harmony with others. (3:11).

Classroom groups provide opportunities for decision-
making. Classroom groups give children frequent opportunities
to think through problems of concern to them, to make decisions, and to experience the consequences of their decisions.

When classroom groups are utilized and student deci-sion-making is encouraged, the classroom becomes a place for trying out choices made. Each child has an opportunity to test the strength or weakness of his decision in an accepting environment. In the process of decision-making, as the individual chooses between and among possible alternatives, he becomes aware of himself as an active agent in an interactive process. In making decisions under the guidance of a mature person, the child learns to assume responsibility for the decision he makes (6:92). "children who are taught to 'do what they are told' lose the ability to think what to do for themselves" (35:285).

Classroom groups develop an inter-relationship between subject-matter fields. Classroom grouping plans provide an opportunity for the teacher to organize experiences in the direction of integrated rather than fragmented learning. Grouping practices give attention to essential factors in child growth and development, avoid whole group instruction when it lacks meaning for members of the group, and maintain balance in the curriculum (52:108).

Grouping practices provide a means of avoiding the large degree of fragmentation children often have to deal with when they are presented four or five different courses of study during the day. When children have to shift their
focus of attention drastically several times, a blurring of significance as to what is being taught is often the result. This violates many of the laws of concentration particularly as they apply to intellectual absorption and retention (23: 146). Classroom grouping plans can counteract this fragmentation by inter-relating the various fields of learning and by providing learning experiences which emphasize the natural requirements of thought.

Classroom groups provide needed variety and flexibility in the instructional program. Small group work adds a variety to teaching-learning procedures. Variety in the learning situation is essential if teachers are to match method with purpose, procedure with content, approach with maturity level and student needs. Variety also offers an opportunity for the release of pent-up energy and necessary muscular and mental activity (43:422).

Fixed assignments, fixed periods, and fixed time allotments can interfere with good learning situations--sometimes cutting short a significant learning experience, sometimes prolonging an activity beyond its usefulness and beyond children's ability to continue learning. By using flexible classroom groups, the teacher can provide relatively large blocks of time as the need appears in order to adapt to the needs and capabilities of the learners and to capitalize on learning opportunities that arise unexpectedly (52:108).

When children become especially interested in an activity, they are reluctant to drop the activity just because the schedule shows it is time for a change. As a result, learning in the new area may be decreased, because under these circumstances children find it hard to give full attention to the new activity. Flexible grouping practices provide opportunities for the flexible use of time in keeping with the needs and interests of the learner.

Classroom groups promote effective learning. Research supports the thesis that small group work, when appropriate, can result in better learning. Research has shown that people tend to learn better that which has meaning and purpose for them; that learning is more effective when the learner is actively involved in the learning "process"; and that "the total power in a group is often greater than the sum of power found in the individuals involved" (43:422).

Classroom groups provide for the utilization of group processes. No other classroom organization can provide for the utilization of group processes as a means of enhancing learning experiences. In the group situation children come to understand how they feel about themselves, about other children, and about the group situation. Increased understanding and acceptance of the self, the members of the group and the teacher, and the group situation result when the whole class works together toward this goal, either in the small
group or whole group setting, by listening to and considering suggestions from others; by learning to value the free expression of opinions and concerns; and by planning, asking questions, thinking critically, and solving problems together (61:154).

When inherent group processes are understood and utilized by teachers for purposes of teaching-learning, classroom work can improve. "Students find the work less difficult and more fun. Learning is more nearly complete and review seems less necessary" (58:182).

Conclusions. Proponents of classroom grouping practices believe that there are certain learning experiences best achieved in the group situation -- some achieved only in this situation. They also postulate that flexible classroom groups provide the flexibility and variety necessary in classroom organization to meet the diverse needs, interests, and abilities of the learners.

These proponents of classroom grouping view the possible outcomes of grouping as follows:
1. Grouping can foster effective instruction.
2. Children grow academically and personally in the group situation. They work toward a common goal and learn from one another. There is increased ability to think, make decisions, communicate, solve problems, and to gather and organize information.
3. Children learn to plan with others and execute plans together. They learn to give a helping hand, to cooperate and to accept responsibility.
4. With many opportunities to contribute, children come to recognize their own strengths and weaknesses. They learn to accept and value personal differences. They learn to tolerate their own failures and be sympathetic with those of others.
5. Both teacher and child come to understand what each has to offer. Through group interaction, children also learn to know themselves and gain self-respect.

A DESIGN FOR MEETING THE BASIC PROBLEM FACED BY TEACHERS IN THE ORGANIZATION AND INSTRUCTION OF GROUPS WITHIN THE CLASSROOM AS INDICATED BY RESEARCH AND PRACTICE

\section*{I. INTRODUCTION}

This chapter describes those classroom conditions and/ or techniques which have been found to overcome problems that teachers meet in organizing groups within the classroom for instructional purposes.

As stated on page 6 , a questionnaire was given to a selected sampling of classroom teachers in order to find out what problems they had faced in grouping pupils within the classroom for the purpose of instruction. From the returns on this questionnaire the investigator selected the problems which were listed by the greatest number of teachers. After reviewing the research related to these problems and after considering the procedures used by successful educators in meeting such problems, it became apparent that these problems and procedures were all related to one basic concern -- how to utilize time, energy, material and human resources in order to provide differentiated instruction to meet the specific needs of all groups and individuals within the classroom.

The writer then attempted to develop a set of guidelines or principles which would effectively meet this problem related to classroom grouping and, thus, make it easier to adapt instruction to the needs of the individuals and groups within the classroom.

Methods for identifying the pupils' individual needs, interests, and abilities, and provisions for continuous evaluation of pupil growth and progress toward educational objectives have not been included in this study which is concerned mainly with problems related to grouping. The writer does, however, recognize their importance and must assume that the teachers have made these assessments before and during efforts to adapt instruction to the individual differences found in their classrooms. In order to provide for new learning experiences that will develop social skills and knowledge and abilities in the content fields, the teacher must assemble concrete evidences of performance levels, learning potentialities, and group and individual interests. Important information which the teacher must have for diagnosing the pupils' instructional needs and the sources of that information are given on pages 58 and 59.

\section*{PUPIL INFORMATION NEEDED BY THE TEACHER}

\section*{DURING THE FIRST DAYS OF SCHOOL}

AND THE SOURCES OF THIS INFORMATION (53:20,21)
\begin{tabular}{|c|c|c|}
\hline What the Teacher Needs to Know About the Pupils & Experiences That Reveal the Facts & \[
\left\lvert\, \begin{gathered}
\text { Records to } \\
\text { be } \\
\text { Consulted }
\end{gathered}\right.
\] \\
\hline Level of performance in tool subjects. & \begin{tabular}{l}
Reading Lessons. \\
Audience reading. \\
Silent reading. \\
Standardized tests in spelling, reading, English usage, and English grammar. \\
Group and individual tests on current events, history, geography, literature. \\
Games, quizzes, group contests.
\end{tabular} & Records from the previous grades. \\
\hline Scholastic and social abilities and interests. Ability to follow directions. & \begin{tabular}{l}
Standardized tests, inventories questionnaires, interviews. \\
Creative writing (Autobiography Three Wishes, My Gripes, What I Would Do With \$100, My Favorite Person). \\
Games. \\
Library periods. \\
Spontaneous assignments to do things, get information as need arises and questions are asked. Errands. \\
Parties, picnics, and trips.
\end{tabular} & \\
\hline Past experiences, home condition, economic level, affectional security. & \begin{tabular}{l}
Intimate writings (as above). Conferences with previous teachers and counselors. \\
Making a community survey. \\
Party for parents. \\
Home visit.
\end{tabular} & Clinical records about adjustment to adults. Individual and group records of the units previously studied. Any available community surveys \\
\hline
\end{tabular}

PUPIL INFORMATION CHART, COn't.
\begin{tabular}{l|l|l}
\begin{tabular}{l} 
What the Teacher \\
Needs to Know \\
About the Pupils
\end{tabular} & \begin{tabular}{l} 
Experiences That Reveal \\
the Facts
\end{tabular} & \begin{tabular}{l} 
Records to \\
be
\end{tabular} \\
\hline \begin{tabular}{l} 
Maturity levels - \\
physical, social, \\
emotional. \\
Levels of emanci- \\
pation from the \\
adults.
\end{tabular} & \begin{tabular}{l} 
Discussions of fun, beauty, \\
home life, neighborhood prob- \\
lems, friendships. Inter- \\
views with individuals. Con- \\
ferences with parents. ob- \\
servation of work and play.
\end{tabular} & \begin{tabular}{l} 
Clinical re- \\
cords.
\end{tabular} \\
\hline Health problems. & \begin{tabular}{l} 
Questionnaires. \\
Interviews. \\
Observation.
\end{tabular} & \\
\hline
\end{tabular}

Specific inventories for determining individual interests are included in Appendix A. Diagnostic tests which will aid the teacher in assessing individual performance levels and in diagnosing individual needs can be found in Appendix I.

In order to obtain the best textbooks and library books available which will meet the needs and interests of the individuals in the classroom, the teacher must have some basis for selecting and evaluating these materials. To guide the teacher in the selection of printed materials, a formula for determining the difficulty level of textbooks, a scale for determining the grade level of a book, a guide for book evaluation, and book lists for elementary school children and retarded readers are included in Appendix \(F\).

The problem to be considered is presented in the form of a question. The writer has tried to answer the question by presenting procedures by which educators have met and solved the problem. The first three procedures are basic -determination of educational priorities, flexible scheduling, and flexible group arrangements. These conditions are essential if the teacher is to utilize his time, energy, material and human resources effectively in providing differentiated instruction to meet individual and group needs and interests. Without these provisions the subsequent proposals which are presented would lack effectiveness. These proposals are considered as being equally important aspects involved in the
solution of the basic problem facing classroom teachers. It will remain, however, for the individual teacher in using this guide to decide which, if any, of these methods will meet his particular problem in his particular situation.
II. HOW CAN A TEACHER UTILIZE HIS TIME, ENERGY, MATERIAL AND HUMAN RESOURCES IN ORDER TO PROVIDE DIFFERENTIATED INSTRUCTION WHICH WILL MEET THE SPECIFIC NEEDS OF ALL GROUPS AND INDIVIDUALS WITHIN HIS CLASSROOM?

The following procedures will help the teacher to use his time, energy, material and human resources more advantageously, thus permitting him to give more attention to the individual and group needs of his pupils.

Develop Education Priorities

The development of educational priorities is an essential first step in meeting the problem of utilizing time, energy, and resources in order to provide differentiated instruction to meet the specific needs of all individuals and groups within the classroom; because in order to accomplish this goal, teachers must put their time, energy, and resources on the things that are most important.

School faculty should work together in the development of priorities. If a school faculty can rather clearly delimit the areas considered most important for a student to explore, then individual teachers will have guideposts to
follow in utilizing the time available for instructional purposes. Such a delineation would give increased insights into the desirable emphasis education should take. Once these guideposts are established, decisions regarding the problems of time utilization can be more easily faced.

It seems important to emphasize that the educational goals and objectives formulated by a school faculty should not be regarded as a rigid pattern for educational experiences, but as guidelines to maintain a sense of direction in selecting, planning, developing, and evaluating educational experiences that are of most importance in the time available.

The role of the learner in the development of priorities. The school faculty should have the initial responsibility in decisions regarding educational priorities; however, ultimately, the final decision must come as the pupils and the teacher work together in planning learning experiences to meet their individual and group needs.

Adopt a Flexible Daily Schedule

Once the important educational goals are determined, the teacher must then provide for the development of a flexible daily schedule, if time is to be utilized in such a way that both individual and group needs are met efficiently and effectively.

Advantages gained from the utilization of a flexible schedule. A flexible daily schedule should provide
for large blocks of time for certain types of group work, as well as times when individuals can pursue activities based on particular needs or interests. Examples of a flexible schedule and a "fixed" schedule are shown on pages 64 and 65.

When no time limits are set, groups can continue to work as long as the members of the group are profiting from the team effort or until an immediate need or interest is met. This makes it possible for group work to vary from five minutes to more than an hour, depending upon the purpose for the grouping.

Group work cannot be based on a fixed time schedule if students are to develop a workable understanding of the topic being studied. The time spent in group work on the significant problems should be determined by the degree of the students' understanding of the interrelationships of the facts studied, their abilities to draw generalizations from these facts, and their abilities to use these facts and generalizations in the solution of problems. These should be the goals of every study or problem-solving group and these goals should be continuously evaluated by the students and the teacher. If it takes additional time for the students to assimilate the materials or knowledge so that they can use it, then the additional time has been well spent. A flexible schedule will provide the time necessary for the development of these educational goals.

\section*{A FLEXIBLE DAILY SCHEDULE*}
\begin{tabular}{|c|c|l|}
\hline \(9: 00-10: 30\) & \(10: 30-10: 45\) & \(10: 45-11: 25\) \\
\hline Language Arts & & Arithmetic \\
\begin{tabular}{l} 
Reading, Language, and \\
Handwriting.
\end{tabular} & & \begin{tabular}{l} 
Block of time for \\
individual and/or \\
Large block of time for \\
individual and/or group \\
instruction.
\end{tabular}
\end{tabular}
\begin{tabular}{|l|l|c|l|l|}
\hline \(11: 25-11: 45\) & \(7 l: 45-12: 05\) & \(12: 05-1: 00\) & \(1: 00-2: 00\) & \(2: 00-2: 10\) \\
\hline Spelling & \begin{tabular}{ll} 
Physical \\
Education
\end{tabular} & \begin{tabular}{l} 
Noon \\
Hour
\end{tabular} & \begin{tabular}{l} 
Social Stu- \\
dies and \\
Science
\end{tabular} & \\
& & \begin{tabular}{l} 
Block of \\
time for \\
individual \\
and group \\
Work
\end{tabular} & Recess & \\
\hline
\end{tabular}
\begin{tabular}{|l|l|}
\hline \(2: 10-2: 55\) & \(2: 55-3: 10\) \\
\hline Art 45 minutes Monday & Complete records \\
Music 30 minutes Tuesday \& Thursday & Plan schedule for \\
the following \\
\begin{tabular}{c} 
Individual work \& remedial instruction \\
Tuesdays and Thursdays, following \\
Music.
\end{tabular} & \begin{tabular}{l} 
day. \\
\begin{tabular}{c} 
Special Activities 45 minutes Wednes- \\
day (Class trips, play-making, films)
\end{tabular} \\
Free time** 45 minutes Friday
\end{tabular} \\
\hline
\end{tabular}
*A block of time for separate language, penmanship, and health instruction has not been included. It is felt that such instruction can be provided more effectively when it is based on real needs as they arise in other areas. **Freetime is not spare time. Each student must engage in some activity either independently or in a group.

\section*{A FIXED DAILY SCHEDULE}
\begin{tabular}{|c|c|c|}
\hline 9:00-9:30 9:30-10:00 10:00-10:30 & 10:30-10:45 & 10:45-11:25 \\
\hline Reading Instruction & & \\
\hline Group I IGroup II IGroup III & & \\
\hline \begin{tabular}{ll|l} 
meets with \\
the teach- meets with the teach- meets with \\
er. the teach- \\
& er. & er.
\end{tabular} & Recess & Arithmetic \\
\hline Groups II \& Groups I \& Groups I \& & & \\
\hline III work \(\mid\) III work \({ }^{\text {a }}\) II work & & \\
\hline \begin{tabular}{l|l} 
independ- & independ- \\
ently on & independ- \\
ently on & ently on
\end{tabular} & & \\
\hline activities; activities | activities & & \\
\hline assigned \(\mid\) assigned \({ }^{\text {d }}\) assigned & & \\
\hline by the \(\quad\) by the \({ }^{\text {d }}\) by the & & \\
\hline teacher. | teacher. i teacher. & & \\
\hline
\end{tabular}
\begin{tabular}{|l|c|c|c|c|}
\hline \(11: 25-11: 45\) & \(11: 45-12: 05\) & \(12: 05-1: 00\) & \(1: 00-1: 30\) & \(1: 30-2: 20\) \\
\hline Spelling & \begin{tabular}{c} 
Physical \\
Education
\end{tabular} & \begin{tabular}{l} 
Noon \\
Hour
\end{tabular} & Language & \begin{tabular}{l} 
Social Stu- \\
dies three \\
days \\
Science or \\
health two \\
days
\end{tabular} \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline \(2: 20-2: 30\) & \(2: 30-3: 10\) \\
\hline Recess & Music \\
& Art \\
& Penmanship \\
\hline
\end{tabular}

Developing a flexible schedule. Such a schedule is best developed cooperatively by the teacher and students. The findings of research indicate that there are advantages to be gained from cooperative planning. It has been found that the method is one which is helpful to botn teacher and students in planning their time for effective and efficient learning (10:423).

Some educators suggest that the teacher should begin in the area of the curriculum with which he is most familiar in his first attempt to develop flexible scheduling. It is in this area that he will be able to operate with the greatest confidence and freedom. From this point the task of expanding such a schedule to include all learning experiences will be greatly facilitated.

In developing a flexiole schedule, Parker and Russell suggest a technique which teachers have found helpful. They suggest that the teacher give shorter and more frequent instruction to those pupils having difficulty with materials. These pupils may be given a variety of presentations and opportunities for review without including identical materials in the repetitions. Children having such difficulties need special help in the readiness parts of the lesson period when purposes and concepts are clarified (56:171).

They also recommend the use of time in the school day, often called "free" periods, when children can make individual choices about their activities and/or the group in which
they would like to participate. This also gives the children opportunities for decision-making: planning their time, deciding what to do, and deciding how to implement their plans (56:172).

The results of flexible scheduling. If the daily schedule is flexible, learning activities need not be restricted or drawn-out because of the time element. When many different patterns of grouping are used in the classroom, with some groups operating simultaneously, the utilization of schooltime becomes less of a pressure on the learners and the teacher.

Provide for Cross Groupings and Flexible Groupings

The primary reason for grouping children within a class is to bring together those children who share a common interest and/or a common need for a special kind of instruction at that particular time. To be effective these groupings must be flexible, serving different children at different times for different purposes.

Classroom grouping should not be a "routine" device to facilitate teaching; but, rather, a flexible device by which learning is facilitated. The "fixed-group" concept makes this plan of classroom organization no more than a small-scaled lock step plan. Group work should continue only as long as the members of the group profit from the team effort or until an immediate need or interest is met.

By keeping groups flexible, the pupils will not feel "stuck," nor will they feel a stigma attached to change. When pupils sense this freedom in the classroom environment, the teachers will find that cross groupings will become a natural and normal occurrence.

Techniques effective in providing for cross grouping and flexible grouping. Many teachers have kept classroom groups flexible by allowing pupils to work in one group for needed reading experiences, then allowing them to shift to other groups for experiences in other areas of subject matter. Or, if the class is working on a problem or a unit of work, a child might be allowed to work with one group on one phase of the problem and with another group on a different phase.

Flexible grouping permits the teacher to form groups freely, even on the spur of the moment when he sees that some youngsters aren't getting a certain point or when some of them share an especially keen interest.

Teachers should use various kinds of bases for grouping. Wilhelms suggests that some groups should be formed on the basis of special interests, without much attention paid to ability. He also suggests using friendship or congeniality as the basis for some groups, letting youngsters who like each other work together pleasantly (69:136).

The Oakland Public Schools suggest six types of grouping in their curriculum guide: (1) interest grouping -- child-
ren who are interested in a particular topic can pool the information they have gained from reading various materials; (2) special needs grouping -- certain children from other groups may be called together to form a special group for learning a particular skill they need; (3) team grouping -here two children can work together as a team on a specific problem common to both; (4) tutorial grouping -- this refers to a group formed for direct instruction by the teacher or sometimes by a more advanced child who needs help from the teacher in planning what he will do with the small group which he is leading; (5) research grouping -- this is a useful device when two or more children work on a particular topic to prepare a report for the class or for another classroom; (6) full class grouping -- a number of activities are best introduced to a total class in the sense that they are common or core learnings (54:81). In such activities, the teacher's time and energy can be saved if the total group is instructed at once. Choral reading, dramatization, reporting, and listening to records are a few of the many activities involving the whole group.

When skillfully managed, schemes for flexible grouping and cross grouping are of great value. They permit the teacher to work throughout an entire period with one group, if necessary, while the children in other groups carry on their own activities. During such times there might be several children working in pairs, in small groups, or individ-
ually at their desks depending upon their needs at the moment. Such an environment is made possible only when children are released from the stigma attached to change, which is present in the "fixed" group concept of classroom grouping.

Provisions for flexible group practices, as described, are basic to the differentiation of instruction which is necessary to meet individual and group needs. They are also essential if the teacher is to utilize his time, energy, material, and human resources in providing the best learning experiences for all children in his classroom.

Eliminate or Reduce Non-teaching Tasks

The findings of research indicate that teacher effectiveness in the classroom is impaired by too many clerical and supervisory duties. It seems important, therefore, that all educators seek ways to free teachers from these duties, thus giving them more time to provide for the instructional needs of their students.

Techniques which can free the teacher from non-teaching tasks. There are administrative devices which can relieve the teachers of some time-consuming tasks and enable them to give more time to direct work with individuals and groups. Volunteer assistants and non-certified employees are being used by an increasingly large number of schools in order to relieve classroom teachers of the enormous amount of clerical work and playground supervision often required of them.

Data processing machines are also used to reduce the teacher time required for some of these non-teaching jobs. They have cut the time spent on report cards to a minimum. They completely eliminate the task of filling out the basic information (name, grade, teacher, etc.) and grades on the card.

Although these techniques which have been used to reduce time-consuming tasks cannot be directly applied by the teacher, the writer suggests that teachers try to obtain such assistance by first involving other teachers, their school principal, and the local P.T.A. group in a study of the basic problem at hand -- how to release teachers from non-teaching tasks enabling him to give more time to important instructional matters.

Utilize Modern Equipment in Order to Put the Teacher in More Places at One Time

In spite of the problems brought about by increased automation in our society, technological advancements have resulted in the development of audio-visual aids useful in the classroom. Research findings show that these aids can free the teacher from many time-consuming daily tasks and, thereby, put him in more areas of the classroom simultaneously. There are several methods for using these aids which permit the teacher to work with more than one individual or more than one group at the same time.

The use of tape recorders and recordings. The tape recorder has been used effectively by many teachers in order to provide simultaneous instruction for individuals and/or groups. The tape recorder can be used for such tasks as: presenting spelling words, testing individuals or groups on their mastery in a particular arithmetic process, and presenting story problems to nonreaders or children handicapped in arithmetic because of reading difficulties. By using earphones, teachers have used tapes to present materials to one or more students having the same particular need or interest at the same time without disturbing other activities going on in the classroom.

In foreign language instruction tape recordings and phonograph records can present individualized practice in vocabulary development and pronunciation, allowing the teacher to utilize a small group instruction period for others at the same time.

The use of programmed materials and projection equip-
ment. Programmed instruction materials such as scrambled books and teaching machines also provide a means of presenting specific work needed by one or more individuals, while the teacher works directly with others. Recently tablesized projection equipment has been made available for individual and small group use. The teacher needs to be aware of the materials being developed for these new audiovisual aids. There will be an increasing variety of mate-
rials available which will possibly present concepts effectively, giving the teacher more time for direct group work.

Audio-visual aids can help teachers solve the basic problem related to classroom grouping. The use of audiovisual aids and materials can help the teacher distribute his time so as to provide more time for effective work with groups. If they are wisely used, these aids are a means of putting the teacher in more than one area of the classroom in order that he can provide direct and purposeful instruction to several groups and/or individuals simultaneously.

Use Techniques and Materials Which Reduce the Need for Daily Preparation of Consumable Worksheets and Specialized Assignments

The following section describes some non-consumable work-type materials which can be used over and over by one student or several students, and which can be adapted to a variety of instructional purposes.

Materials which reduce the need for daily preparation of consumable worksheets and specialized assignments. Educators have reduced the preparation time involved in worksheets and other consumable assignments by devising materials of a nonconsumable nature.

Job cards. One such nonconsumable material is the "job card" (see Appendix H). These cards are designed to provide practice in only one particular skill and to apply
to a variety of instructional materials at various levels of difficulty. Since the more able pupils use more complex materials, they have to do more work in connection with each job card. Teachers have used these cards successfully in developing the basic skills in all subject areas. By putting instructions for \(a\) job on heavy-weight paper, approximately 8 1/2" \(\mathbf{x} 3 "\), the need for reduplication is virtually eliminated. If each child develops a file of the job cards he can use independently, then he will have at hand a source of materials from which he can choose on the basis of his needs.

The writer has found these cards indispensible at both the elementary and junior high level. The preparation time involved in consumable worksheets is reduced, and instruction seems to be more effective when the student concentrated on one particular skill at a time. Worthwhile assignments for various groups as well as students working independently are thus made available at all times.

Tape recordings. Tape recordings will also reduce the amount of consumable materials needed for instruction. Although specific tapes for meeting particular needs are most often teacher-made, the actual recording takes relatively little time and the tapes can be used over and over by individuals or groups without the duplication involved in the use of worksheets.

Techniques which reduce the need for daily preparation of consumable worksheets and specialized assignments.

There are other techniques which can save the teacher's time in correcting papers and, at the same time, provide a diversity of nonconsumable materials. Teachers have found that by using onionskin paper, pupils can work directly from a workbook by placing the paper over one page. This permits many students to use the same workbook. After the answers are completed the child can check his work immediately by placing the onionskin paper over the corresponding page in the teacher's edition of the workbook. This technique is more advantageous when the school provides a wide variety of workbooks from which children can choose. By also providing teacher's manuals and answer books, children may check their own responses to textbook questions and practice work. This allows them to proceed independently without waiting until the teacher has time to evaluate their progress.

To reduce the time involved in the preparation and checking of consumable materials, many teachers teach the children themselves to do the checking. In arithmetic, there are times when two or three students can work together and invent exercises for each other. This technique eliminates the need for checking by the teacher, as well as the need for preparing materials. Experiences like these also provide important and creative learning activities.

Research findings indicate that teachers should not correct every detail on a paper but concentrate on selected
skills and abilities which the child currently is attempting to develop. This approach to correcting will not only save time but will result in a better learning experience for the individual.

The advantages in using nonconsumable materials seem to be obvious. Too many teachers spend undue amounts of their time in the preparation and checking of consumable worksheets and specialized assignments. Teachers must develop many nonconsumable materials to meet a variety of purposes in order to have the time and energy to concern themselves with the learner and his particular needs. The writer believes that these nonconsumable materials can meet individual needs and improve instruction more effectively and more efficiently than any other single procedure.

Simplify Record-Keeping

Much of the record-keeping described on the following pages can and should be done by the students. Providing adequate records of progress from time to time for each child is an essential, yet, too often, a very time-consuming task required of teachers. But, when a simplified system of recordkeeping is established, students can assume the responsibility for maintaining many of their own progress records. This not only saves time for the teacher but also provides an important learning experience for the children themselves. Pupils need to evaluate their progress; they need to see their strengths and
weaknesses and the goals toward which they are working. Teachers have found the following devices helpful in reducing the time needed for maintaining adequate pupil records.

Instructional Sequences and Check Lists. Complete instructional sequences are somewhat comparable to courses of study. These sequences in each subject not only provide a guide to the development of the total instructional program, but they are also essential for record-keeping. The development of condensed or simplified sequences, which include only the most important elements in the complete sequence, is recommended for each subject. These simplified sequences are easily explained to the children, and can be used by them as check-lists to show progress made in the development of basic skills.

Condensed forms of instructional sequences are included in Appendix \(C\).

Group Chairman's Report. As the name implies, this report is completed by the chairman of a classroom group. It should include a list of the students working on a particular committee and a brief statement regarding the behavior of each. Spaces should also be provided for short, frequent progress reports. An example of this report is found in Appendix B. This particular example is designed to record group activities during a class trip; however, the same record could easily be adapted to any group activity.

Daily reading reports. Teachers have found these reading reports helpful in assessing individual progress in reading each day. The pupil can briefly state what he read during the day, the kind of independent or group activities in which he participated, and any special help he needs with his reading (see Appendix B). These daily reports could be adjusted to record the progress made in other subject areas.

Pupil-teacher evaluation forms. These forms are useful in evaluating and recording student progress toward class goals. Each item is rated on a descending 5-4-3-2-1 scale by the pupil and by the teacher. After being rated the total points are averaged. When discrepancies occur between the pupil and teacher ratings, a conference is arranged and the results or decisions reached are recorded on the same form. An example of such a form is included in Appendix B.

Self-evaluation techniques make it possible for the teacher to supervise a child's record-keeping methods and at the same time provide instruction -- utilizing time and energy advantageously.

Personal notebooks for recording progress. In an experimental study conducted by Grant (described in Chapter III), it was found that students could keep very informative progress records in the form of personal notebooks. These notebooks included such items as areas of interest, questions that were unanswered, special difficulties encountered in a particular area, lists of books read, test scores, and
special assignments or achievements. These notebooks were found to provide a highly individualized account of each child's progress.

Elementary teachers might also find this technique helpful if notebooks were indexed according to the following subject areas: reading, spelling, arithmetic, social studies, and science.

At the secondary level teachers will find this same device applicable. The writer would suggest, however, expanding the procedure to permit students to develop greater self-evaluation skills. A progress record in the form of a "reaction journal" would be appropriate at this level. This journal might include items such as: records of work done in class, candid accounts of all class activities, reactions to materials read, reactions to small or whole group discussions, lists of sources used in research work, ideas to remember, areas of disagreement with other students or the teacher, and areas of weaknesses and strengths.

Student test results and samples of independent work simplify record-keeping. The following records are essential for recording pupil progress, yet they virtually eliminate the need for teacher preparation and the need to record the results on separate forms. These materials can be placed in the individual pupil folders as soon as they have been evaluated.

Dated work samples. The teacher should collect a variety of independent work samples. When these samples are dated, it is possible to assess individual progress by noting areas of improvement or areas in which the student has made little progress. These samples give up-to-date information on every phase of skill development.

Standardized and instructional test results. These test results provide information pertaining to pupil progress based on established norms. Cumulative records should include profile charts from standardized tests and copies of instructional tests given throughout the year. Good instructional tests, for example, come with the Scott, Foresman arithmetic series and the Scott, Foresman and the Ginn reading series. These tests may be administered even though a different series of books have been used. The results are useful in the identification of specific pupil needs and can often indicate progress made in the total instructional sequence.

Sample recordings of individual readings. Children can tape record two- or three-minute samples of their own reading at frequent intervals during the year. If the pupils include their name, the date, and the source of the material read, teachers have samples which can be compared with earlier and later recordings for the purpose of determining progress. Similar tape recordings of small group and whole class activities are useful in evaluating progress made in decision-making abilities or in the ability to work cooperatively and effectively with others.

These test results and samples of individual work contribute immensely to pupil progress files. They simplify for the teacher the process of record-keeping, which is essential if the basic problem related to classroom grouping is to be met -- the utilization of time and energy in order to provide differentiated instruction to meet individual and group needs.

Administrative devices that simplify record-keeping. A few simple forms can be used to make certain that the information concerning individual and group progress is complete. Many times administrators can simplify their record forms and get even more direct, usable information regarding pupil progress. This would not only reduce the teacher's time involved in record-keeping, but could also provide the following teacher with more pertinent information regarding individual students.

The following basic forms provide adequate information of this nature for cumulative records and require relatively little time for teacher preparation.

Check lists of basic skills. Check lists of specific skills are essential in record-keeping and should be provided by administrators. Such lists make it possible for students to assume some of the responsibility for indicating individual progress. Examples of check lists of specific reading and arithmetic skills are included in Appendix C.

Check lists of reading books used. Simple check lists can also be devised for recording the basic and supplementary
readers used by each individual during the year. A marking system can be adopted so that teachers may indicate the way the reader was used and the date of completion or use.

Parent-teacher conference reports. The pupil progress file should also include copies of parent-teacher conference forms. These provide summaries of instructional information pertaining to each child. The writer has found these very useful when desiring a quick overview of individual progress. Some schools have simplified the preparation of these forms by furnishing \(N\) C \(R\) paper for the teacher to use in making the needed duplicate copies for permanent records. This paper is easy to use and as a result saves the time involved in the use of carbon paper.

By simplifying record-keeping forms, administrators can reduce the time required to keep up-to-date cumulative records of individual and group progress. The information included in these forms enables the teacher to learn more quickly those individual needs, interests, and abilities of new students; determine their present level in each area; and provide continuous progress without unnecessary repetition.

Machines can simplify record-keeping. In addition to the adoption of simplified record forms, a number of school districts have purchased new machines which have reduced the time teachers previously spent in providing details for student records.

Data processing machines. Data processing machines have been used to record all types of student information. In addition, they can be used to give information back to the teacher quickly, which relates only to the problem at hand. It is important to mention these machines because as the school population continues to increase, more and more districts will find it necessary to purchase such machines if the teacher's time is to be used for the direct instruction of individuals and groups in the classroom.

Tape recorders. Tape recorders have been used successfully in reducing the load on the teacher for recording anecdotal records. The tape recorder provides so many ways for utilizing teacher time and energy that administrators must recognize this machine as a standard tool necessary in every classroom and encourage its use by acquainting teachers with the possibilities it has to offer in the utilization of time and energy.

A systemmatic plan for record-keeping should be developed. The task of record-keeping is too important to eliminate entirely, because these records contribute to the total picture being developed of each individual as he progresses through the educational system that is provided for him. Yet, this task must be simplified if teachers are to have the time necessary to provide effective learning experiences in the classroom. Teacher and pupil time may be wasted if progress forms include too many trivial items and/or require lengthy statements regarding pupil progress; however,
a systemmatic plan for recording pupil growth should be developed by the teachers and administrators. This plan should include the following basic principles: (1) Progress records should include only that pertinent information which will indicate levels of performance, individual strengths and weaknesses, and degrees of social development. (2) Progress records should be simplified in such a way that students can assume some of the responsibility for their maintenance. (3) Record-keeping activities should be kept to a minimum. (4) A few simple forms should be devised that will provide the most important information, yet, involve the least teacher preparation.

Give the Pupils a Greater Share of the Responsibility for Classroom Management

When students assume a share in the responsibility for classroom management, a class routine can be established which will free the teacher to work with individuals and groups. Such a class routine requires self-control on the part of each individual, consideration for others, and a knowledge of how to work independently.

It is difficult to pick out key methods which will result in good room management. But, the author does know that when children have a share in the responsibility for this management, they develop an entirely different attitude or spirit. They feel concern for the rights and feelings of others in the
class, concern for the individual needs and interests of others, and a greater responsibility for their own behavior and the behavior of classmates. This "spirit" virtually eliminates discipline problems. By involving children in the responsibility for classroom management, meaningful experiences can result. These experiences provide opportunities for students to see the results of their behavior and how their behavior reflects on the whole class.

Certain techniques are presented in this section which educators have found helpful in the involvement of students in the responsibility for room management. Teachers must not, however, expect to find any set of techniques or procedures which will assure the elimination of all problems related to classroom management. This aspect of teaching is so dependent upon teacher personality and classroom climate that the writer can only suggest ways that teachers might find usable in their particular situation. It is hoped that by putting these techniques into operation within the classroom, teachers will find that the sharing of classroom management with students is not something they conscientiously have to plan but rather a natural and continuing part of the room atmosphere.

Encourage students to develop a plan for self-government. The institution of self-government enables children to learn the principles of democratic leadership through ex-
periences that are meaningful to them. Pupils will be quick to accept the idea for developing their own student-government. Although children will usually be familiar with the procedures of electing class officers by the fourth grade, the institution of a "self-government" will involve more than holding periodical class meetings. A truly self-governmental organization within the classroom provides for selfmanagement in an ever-increasing measure as students grow with regard to their sense of responsibility and skill in self-control.

Students probably will decide to elect a president, vice president, secretary, and treasurer, but this decision should be theirs. This is one of the earliest opportunities for decision-making and one which can be easily carried out so that the results of their decision can be readily observed and then evaluated.

Some classes organize a student council which is composed of the current class officers, past presidents, and/or other past class officers. The student council can be responsible for recommending rules for classroom behavior and management. These rules can then be presented to the class for their final suggestions and, if satisfactory, their adoption. Rules made by the mutual consent of students have been found to be consistently more effective than those made by the teacher and then imposed on students.

A "Ticket for Undesirable Behavior" is included in

Appendix E. This is an example of a procedure for managing classroom behavior incorporated by one class which was involved in the responsibility for classroom management.

The institution of self-government provides for classroom management which is based on group decisions and group actions. Pupils will become more and more skilled in self-management and room management as they are given increasingly more responsibility commensurate with their growth in these skills. Such an environment enables children to have a diversity of learning experiences which are not possible when the teacher has to divide his time and energy between the provision for the instructional needs of all students, and the planning, motivation, and direction of individual and group activities.

To illustrate this point the writer must refer to her fifth grade class in the Edmonds School District, and an experience they had which resulted from their involvement in classroom management. This class had been with the teacher for two years. In the spring of grade five, the children planned a trip to the Seattle World's Fair. After gathering information on the Fair, they had to decide which exhibits would be most important for them to see together as a class in the ten hours they could stay. After much discussion and revision, the class secretary had a list of the exhibits decided upon in the order of their relative importance. The next step was to plan a schedule for the
day. Within the ten-hour limit, the class designated the exact amount of time that could be devoted to viewing each exhibit. Using their schedule, the teacher made arrangements to have guides wherever possible.

By using a large map of the fair grounds, the class planned the exact routes they would take to save time. In fact several different students could be found in the room during each recess for about a week drilling one another on these routes and the exhibits and their locations.

In addition to the development of time schedules and routes, the class developed special rules for behavior. They had learned from previous experiences that such rules were necessary if they were to utilize their time to the best advantage. The following are examples of the rules they made: (1) Stay with your partner and group leader. (2) Do not stop to buy a souvenir. (3) Do not eat until the class stops for that purpose. (4) Do not talk when the guide is speaking. (5) Ask questions when the guide finishes his speaking. (6) Thank the guide as you leave the exhibit.

Four mothers and the teacher accompanied the class on their trip. To the class this trip was virtually the final test of their competence in self-government and self-management. The group followed their schedule and managed their own behavior as planned. They were a little concerned, however, about the welfare of the mothers and the teacher. This experience also illustrates the fact that selfmanagement extends beyond the classroom. As children become
more and more skillful in self-governing procedures, their ability extends to the library, the playground, the auditorium, the gym, and, as illustrated, to class trips.

Techniques helpful in maintaining good discipline. Discipline problems should be met in terms of facilitating group goals and clarifying individual tasks. It often helps to have the group discuss its progress and any factors which may have impeded progress. The job of discipline is easier if the teacher helps the group maintain its own standards and reach its own goals rather than imposing teacher standards and goals.

When students share with the teacher the responsibility for defining the limitations of their own behavior as well as the areas of teacher influence, the resulting clarification of social relationships produces greater freedom from certain anxieties which reduce learning. At the same time it helps to establish a realistic balance between the social and academic goals of the classroom.

One problem children often face as they begin to work together is that of getting members of the group to pay attention to each other during its discussions. When such a problem arises, the entire class group can analyze this problem. This would be a good opportunity to use the role-playing techniques. In this way all children can understand the situation better by seeing the group in action.

The problem of the obsessive talker is likely to appear as groups begin to work. Here again the class can be given the problem to solve -- a decision to make. Another technique which teachers have found convenient in facilitating class discussions is the utilization of buzz groups to discuss ways of improving the situation. Small groups meeting to discuss a particular problem provide opportunities for individuals to express their ideas more freely, and ultimately increase the possible alternative choices from which the class as a whole can make a decision in regard to the problem at hand.

When pupils are given a greater share of the responsibility for classroom management, they develop a sense of concern for the individual needs and interests of others. The experiences provided in a self-managing environment have been found to result in increased skill in independent learning and democratic leadership. The involvement of students in self-management within the classroom can induce a spirit or loyalty to the class which can literally eliminate discipline problems. The development of these management skills permits the teacher to better utilize his time to provide for the direct instruction of individuals and groups -- thereby putting his time and energy on the things that are most important.

Give the Pupils Greater Responsibility for Self-directed Learning

If teachers are to utilize their time in order to work with various groups and individuals as needed, it is imperative that students learn how to learn by themselves. Only when individuals can assume the direction and management of their own activities is it possible for a teacher to meet with other groups or individuals simultaneously.

If each child has to wait to be told the next thing to do, learning time isn't being utilized to its maximum potential. If a teacher has to devote a majority of his time to maintaining order, time and energy are unduly expended on one particular phase of the total educational program.

Involve students in planning the daily schedule. Possibly the first step teachers can take in helping children to assume responsibility for self-directed learning is to involve them in planning the daily schedule. This may take a great deal of guidance at first, especially if the students have not had much experience in making plans of this kind. It will be necessary for the teacher to first explain the time allotments required for each subject by the state and local district, if the class is self-contained. Within these basic guidelines, children can become very adept at planning schedules which provide the flexibility necessary to meet their needs.

Help the pupils to determine their own goals and plan learning experiences to meet these goals. Learning
to learn by oneself must be a major objective of the instructional program. Children must learn how to recognize their individual needs and how to utilize the available resources in providing for their needs. When learning of this nature is emphasized, a classroom environment will result in which individuals are permitted and encouraged to work at their own pace progressing as fast as they are able.

The following technique has been found useful in
helping students develop increased ability in the identification of their individual needs, in determining their goals, and in planning those learning experiences that will most effectively meet their goals.

Pupil Study Contracts. Educators have found the use of individual study contracts helpful in the development of skills related to planning independent learning activities. When a pupil makes a contract, he commits himself to the completion of the job stated on the contract. The contract form should include statements regarding the nature of the job, the need for the job, and the goals students are trying to accomplish. The contract may also require the child to list all resource materials he will use in the fulfillment of the contract, to list other pupils, if any, who plan to work with him, and the probable date for completing the job. Check-lists and condensed sequences of instruction ( as described on page 77) are devices which children can use to identify their individual needs. With a realistic knowledge
of their strengths and weaknesses, the pupils can then develop their personal plans or courses of study to provide learning experiences to meet their needs.

At first these contracts should be constructed by the teacher and student working together as a team. This team effort will emphasize the importance of each contract. As the student gains skill in this process, he will be able to carry out this task with less and less teacher guidance. The teacher is freed to work more directly with individuals as pupils gain independence in pursuing their own goals and related learning experiences.

If a major educational objective is to provide experiences for the maximum development of individual capacities, then the teacher must seek devices such as pupil contracts which permit him to work more directly with children. Devoting an undue amount of time and energy to the provision and presentation of subject matter often results in the emphasis on the development of subject matter rather than on the development of the individual child.

An example of a Pupil Study Contract can be found in Appendix D.

Emphasize the importance of decision-making in every aspect of the school experience. Decision-making must be considered an important part of every learning experience. Children need to learn to recognize issues and problems of
concern to them. They must be given the opportunity to share in making the decisions which affect them directly. There are certain things that children need to know in order to learn how to make decisions. These aspects of decision-making must be repeated in every learning situation if children are to develop skill and facility in this process. After pupils learn to recognize a problem, they must be taught how to assemble facts, information, and opinions related to their particular problem. Then they need to learn how to evaluate the data obtained. At this point several alternative choices may be recognized. Children must learn how to evaluate these alternatives with regard to their effectiveness in achieving the desired goals. After evaluating the alternatives, pupils must be given an opportunity to select what appears to be the best alternative and then follow it through with the appropriate action once the choice is made. This action gives pupils an opportunity to check or evaluate the outcome of their decision. Every time this decision-making process is carried out, students can think through the consequences of their decisions and discover ways to improve them.

A complete list of the steps in problem solving is included in Appendix C. It must be emphasized, however, that decision-making involves more than just problem solving. Decision-making goes on to follow the action through. It goes on to check the situation to see if the action is
appropriate. This process lets the pupils feel the results of their decisions as they are applied to actual situations. The total process is basic in learning how to think clearly in a complex and constantly changing world.

Enlist the Aid of Parents in Providing Supplementary Learning Activities

Parents should become involved in every aspect of the educational program provided for their children. It is the responsibility of each teacher to provide opportunities for the parents of his students to meet with him frequently during the year in order to learn about the educational progress of their children and the educational objectives of the school. Informal meetings to discuss school activities or for the purpose of special training in new approaches being used in a subject field can result in a close working relationship between the parents and the teacher. Such meetings also provide opportunities for an individual parent to confer informally about his child.

Parents should be involved in homework activities, not only because these activities are done in the home but also because an understanding of the purpose of the activity and the nature of the work being done will enable them to assume greater responsibility for supervising the homework and dealing with special problems which the child may encounter. When parents assume this responsibility, children can be given learning experiences which can go above and beyond the
experiences provided by a school. However, it must be emphasized that if these experiences are to be worthwhile for the child and the parent, the teacher must be responsible for gathering together the best kinds of activities for them to do and make arrangements for their pursuit.

Grant developed such a program which she called "High Expectations." This program was designed to raise the children above their low socio-economic level and to give them opportunities they had never had. When many children expressed a desire to participate in this program, then it was necessary to have the help of the parents. Each parent was contacted and provisions were made to explain the program to them. In order to stress the importance of the program and the cooperative nature of the activities, a parent's signature was required to enroll a child in the program. The purpose of "High Expectations" assignments was to encourage the child to do more work at a higher level with greater accuracy and skill. The involvement of parents in the planning of this program increased their understanding of its purpose and the parents, therefore, were more willing to cooperate in working with their children on these assignments. This attitude was necessary because the participation in the program meant voluntary homework nearly every night, greater effort on the part of the student to make every effort to have his paper perfect, and a willingness to do some assignments over and over again to achieve excellence.

A list of the suggestions made to parents concerning "High Expectation" assignments and examples of two assignments are included in Appendix \(J\).

This program is described in order to give the reader a specific example of one way parents can aid the teacher in providing supplementary learning activities. Programs of this kind can be developed by teachers as they apply to their particular situations.

At all levels of the educational program provisions for extending the range of the learning experiences possible for the maximum development of each child must be made, if teachers are to take each child as far as they can in the time alloted. Teachers can extend these experiences without expending undue time and energy, if they enlist the aid of parents. By giving parents special training during informal meetings, the purposes and procedures of the school will be more meaningful to them and they will become more involved in the educational program. Such a sense of involvement on the part of parents has been found to result in a cooperative relationship which can be of benefit to the teacher, the child, and the parent.

Conclusions

Included in this chapter were conditions and procedures which educators have found helpful in meeting the basic problem teachers meet in organizing groups within the
classroom -- how to utilize time, energy, material and human resources in order to provide differentiated instruction to meet the specific needs of all individuals and groups within the classroom.

It seems necessary to re-emphasize the fact that no "educational expert" can supply the answer to a particular problem of classroom instruction; too much depends on (a) the readiness of the students and the teacher to assume the responsibility for finding a solution, and (b) their combined skill in following through with wise decisions and effective actions. As teachers and students work together, they become increasingly skillful in dealing with instructional problems within the classroom. Only as procedures are tried, evaluated, improved, and then tried again can a program of instruction fitted to the needs of all the individuals and groups within the classroom be fully realized.

It is hoped that this guide will encourage teachers to utilize some of these techniques which apply to their classroom situations. To be a good leader a teacher must experiment -- new ideas and methods must be tested. Mistakes will be made in this process, but the action taken plus the analysis of mistakes by the teacher and the students provide experiences which can lead to more effective action the next time.

The writer has found that her involvement in this operational approach to teaching has resulted in a continu-
ing search for better ways to meet the individual differences of all students. With this point of view, each day can be a rewarding experience for the teacher, and teaching school never becomes just a "job". This attitude results only when pupil differences are dealt with frankly in every learning situation, and are cherished because of their importance as a unique characteristic of the individual and of a democratic society.

\section*{CHAPTER V}

SUMMARY

\section*{The Problem}

The purpose of this study was twofold: first, to identify those problems of concern to teachers when they are organizing groups within the classroom to provide for (a) individual differences in rates of learning, (b) instructional and/or personal needs, and (c) interests; second, to develop some principles, supported by the findings of educational research and experience, which could be used by educators as guidelines in the area of grouping for instruction.

Procedures Used in This Study
A questionnaire was used to determine those problems classroom teachers meet in organizing groups within their classroom to provide for the individual differences of their students. The questionnaire was administered to fifty-four teachers enrolled in a summer school class at Central Washington State College in 1963 entitled "Individualizing Instruction."

The information obtained through the use of the questionnaire was summarized and restated in the form of
a generalized question: How can the teacher utilize his time, energy, material and human resources in order to provide differentiated instruction which will meet the specific needs of all groups and individuals within his classroom?

After reviewing the research related to the problem and after considering the procedures used by successful educators in meeting such problems, the writer then developed the following set of guidelines or principles which would effectively meet the basic problem related to classroom grouping.
1. Develop educational priorities.
2. Adopt a flexible daily schedule.
3. Provide for cross grouping and flexible grouping.
4. Eliminate or reduce non-teaching tasks.
5. Utilize modern equipment in order to put the teacher in more places at one time.
6. Use techniques and materials which reduce the need for daily preparation of consumable worksheets and specialized assignments.
7. Simplify record-keeping.
8. Give the pupils a greater share in the responsibility for classroom management.
9. Give the pupils greater responsibility for selfdirected learning.
10. Enlist the aid of parents in providing supplementary learning activities.

A variety of recommended procedures, directly related to each of the principles listed above, was presented in order to provide the reader with a usable guide containing a variety of alternatives from which to choose in meeting problems related to classroom grouping. It was emphasized that the results of a particular procedure were more likely to depend upon the teacher than the procedure, per se.

Every group presents different social patterns. Every unit offers different possibilities for learning activities. Every teacher must find, through experimentation, those procedures which will work best in each particular situation. In all probability mistakes will occur, but they should be treated as learning experiences, which they will, in fact, become if the students and the teacher evaluate them properly.

\section*{Current Trends in Grouping Practices}

This thesis shows that there have been many points of view as well as practices in the matter of grouping.

The findings of the research studies cited in Chapter III indicate that plans for ability grouping have not contributed to the development of democratic personalities nor have they resulted in significantly improved achievement.

The results of research suggest moving past a preoccupation with types of groups and going straight to a concept of individualized instruction. There is evidence
to show that flexible grouping may be used as one method of adapting instruction to the needs and interests of the individuals within a classroom.

Experimentation and research have emphasized grouping within the classroom as a way of improving the learning and meeting the individual needs of its members. There is little agreement, however, regarding the best approach to this classroom grouping. Different purposes and different situations require different procedures. There is nothing magical about groups. They will not always provide better learning. Classroom grouping should be used only as a means to an end and not an end in itself.

A flexible classroom organization which fosters problem solving, encourages creative thinking, provides opportunities for creative expression, and enlarges capacities for self-management will make learning more purposeful and effective. The use of flexible classroom groups eliminates the stigma of being associated with the group which all soon learn is the "slow" or "dumb" group. Each child can make steady progress without experiencing failure.

A program utilizing flexible grouping is as much of a skills program as any other; and the teacher, to be effective, should make sure that a clearly defined program of skill instruction is included as a part of each child's learning experiences.

This study, however enlightening it may have been to the writer, does not answer many vital questions related to instructional procedures in the classroom. Among the questions in this area which warrant further study are the following:
1. What changes are needed in teacher education in order to qualify teachers to individualize instruction through flexible grouping?
2. Will a flexible schedule, in controlled experiments, facilitate learning more effectively than a rigid schedule?
3. Do children who are experienced in self-government make better decisions than pupils who have had no experience with self-government?
4. Do pupils working under study contracts, perform better than pupils working on assignments given by the teacher?

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APPENDIX
APPENDIX A
INVENTORIES TO AID IN THE IDENTIFICATION OF INDIVIDUAL INTERESTS
1. Interest Inventories
2. Study-habit Inventory

WITTY INTEREST INVENTORY (9:97-101)

Name \(\qquad\) Date of Birth \(\qquad\) Age \(\qquad\)
Grade \(\qquad\) School \(\qquad\) Teacher \(\qquad\) Date \(\qquad\)

These questions are to find out some of those things boys and girls do and how they feel about certain things. Answer each question as accurately as you can. If you do not understand a question, you may ask your teacher about it.
1. When you have an hour or two that you can spend just as you please, what do you like best to do? \(\qquad\)
2. What do you usually do:

After school?
In the Evenings?
On Saturdays?
On Sundays?
3. At what time do you usually go to bed?

When do you get up?
Are you ever tired in the morning? \(\qquad\) Sometimes? \(\qquad\) Often?
Are you ever late for school?
Sometimes? Often?
Do you ever have headaches? Sometimes? Often?
Are you ever absent from school because of illness? \(\qquad\) Sometimes? Often? \(\qquad\)
Sometimes? Often?
Do you ever cry? \(\qquad\)
 Why do you cry?
4. In the space below write the full names and ages of your closest friends.

\footnotetext{
Underline the name of your best friend. Do you have many friends or few?
Do you have a nickname? What? Do you like it?
}

What do you like to play best?
Would you rather play by yourself, with other boys, girls, boys and girls? Underline.
Do you fight with your friends? Never, sometimes, often. Underline.
Do you have as much time to play as you would like?
Do you have any brothers and sisters? Write their names and ages here.

With which of them do you play?
Does your father or mother ever play with you? What?
Do you like to be with your mother much of the time?
With your father?
5. To what clubs or organizations do you belong?

What do you do in your club?
How long have you been a member?
Are you an officer?
Where do you meet? When?
Do you go to Sunday School?
Do you take any kind of special lessons outside of school?
What kind?
Do you like them?
How long have you been taking lessons?
Is there another type of lesson you would prefer to take?
6. What tools, toys, playthings do you have at home?

Which do you like best?
Do you let other children use your toys? ___ If not, why?
Is there any tool, toy, or equipment that you especially want? What?
Do you have a workshop?
Are you carrying on any experiments?
What?
Do you ever give shows?
7. Do you receive spending money? How much?
Regularly or occasionally?
Do you have a job after school or on Saturdays?
What do you do?
How many hours each week do you work?
Have you ever earned any money? When? How?
How do you spend the money you receive or earn?

Do you have chores or other regular duties to do at home? What?

Do you enjoy these duties? Do you like your home?
8. How often do you go to the movies? \(\qquad\) With whom, usually?
What are the names of the two best movies you have ever seen? a.
b.

Underline the kinds of pictures you like best:
comedy western "sad" news love serial mystery gangster educational society cartoons
Who is your favorite actor?
Actress?
If you were going into the movies, what kind of parts would you want to play?
What stage plays have you seen?
Do you prefer movies or plays? Underline.
9. Have you been to a farm? \(\qquad\) A circus? \(\qquad\) A 200 ? A museum of art? Other museums?
Have you been to an amusement park?
Have you ever seen or gone to a concert? How often?
Have you ever been on a picnic?
Have you ever taken a trip by boat? By train?
By airplane? By bus By automobile? By bicycle? - Where did you go?

Where did you go during your last summer vacation? \(\qquad\)
Underline once the places you liked and would like to see again: underline twice the places you did not like.
To what other places would you like to go?
Who takes you to different places, or do you go alone?
10. What would you like to be when you are grown?

What would your father and mother like you to be?
11. What is your favorite radio program? Second? Third?
How much time do you spend each day listening to the radio?
12. What is your favorite television program? Second? Third?
How much time do you spend each day watching television?
13. Do you have a pet? What?
Are you making any collections? Of What?
Do you have a hobby?
What?
14. Do you like school?

What school subjects do you like best? Second? Third?
Do you take any electives? What?
What school subjects do you dislike?
What do you do best in school?
15. About how much time each day (outside of school) do you spend doing school work?
Do your parents help you with this? Never, sometimes, often. (underline.)
16. Suppose you could have three wishes which might come true, what would be your first wish? Second? Third?
Have you told these wishes to any one? To whom?
Have any of your wishes ever come true?
Have you ever pretended to be someone else? Who?
17. Do you dream at night? Never, sometimes, often. (Underline) What do you dream about?
Are your dreams pleasant?
Are you ever frightened by dreams?
18. What things do you wonder about? \(\qquad\)
19. Are you afraid of many things?

Name some of the things you fear. \(\qquad\)
20. Do you enjoy reading?

Do you like to have someone read to you? \(\qquad\)
Apart from lessons, about how much time each day do you spend reading?
Do your parents encourage you to read at home?
What are the names of some books you have been reading during the last two months? \(\qquad\)
\(\qquad\)
Draw a line through the names of those books which you did not finish.
Do you have a card for the public or school library?
How often do you get books from the library?

How many books do you have of your own?
Name some: \(\qquad\)
What other books would you like to own?
About how many books are there in your home?
Underline the kinds of reading you enjoy most: history travel plays essays adventure stories science poetry novels detective stories music fairy tales mystery stories biography art
21. What newspapers do you read?

What parts do you like best?
Name the comic strips you read and underline your favorites \(\qquad\)
22. What magazines are received regularly at your home? \(\qquad\)
Underline those which you read.
Name your favorite magazines. \(\qquad\)
Name the comic books you read and underline your favorites \(\qquad\)
Where do you get your magazines and comic books?

Name
1. Today I feel
2. When I have to read, I
3. I get angry when
4. To be grown up
5. My idea of a good time is
6. I wish my parents knew
7. School is
8. I can't understand why
9. I feel bad when
10. I wish teachers
11. I wish my mother
12. Going to college
13. To me, books
14. People think I
15. I like to read about
16. On weekends I
17. I'd rather read than
18. To me, homework
19. I hope I'll never
20. I wish people wouldn't
21. When 1 finish high school
22. I'm afraid
23. Comic books
24. When I take my report card home
25. I am at my best when
26. Most brothers and sisters
27. I don't know how
28. When I read math
29. I feel proud when
30. The future looks
31. I wish my father
32. I like to read when
33. I would like to be \(\qquad\)
34. For me, studying
35. I often worry about
36. I wish I could
37. Reading science
38. I look forward to
39. I wish
40. I'd read more if
41. When I read out loud
42. My only regret

\section*{THINGS I LIKE TO DO (39) \\ Devised by \\ Albert J. Harris}

Name \(\qquad\)
1. What do you like to do after school?
\(\qquad\)
\(\qquad\)
2. What do you like to do when it rains?
\(\qquad\)
\(\qquad\)
3. What do you like to do in the evening?
\(\qquad\)
\(\qquad\)
\(\qquad\)
4. What do you like to do on weekends?
\(\qquad\)
\(\qquad\)
5. What kinds of movies do you like?
\(\qquad\)
\(\qquad\)
6. What are your favorite television programs?
\(\qquad\)
\(\qquad\)
\(\qquad\)
7. What books that you have read did you like best?
8. What kinds of things would you like to read about?

A simple interest questionnaire for children.

RECREATIONAL ACTIVITIES CHECK LIST (39:478)
by H. H. Abelson and A. J. Harris
Name \(\qquad\) Boy or Girl \(\qquad\) Age \(\qquad\)
School \(\qquad\) Class \(\qquad\) Date \(\qquad\)

Directions: This is a list of things that some boys and girls like to do. Read each one. If you never do that thing, make a line through it. If you like to do it, make a check ( \(\mathbf{V}\) ) on the dotted line. If you like to do it very much, make two checks on the dotted line.
\begin{tabular}{|c|c|}
\hline 1. Playing tag & 26. Pitching pennies \\
\hline 2. Cops and robbers & 27. Just loafing \\
\hline 3. Follow the leader & 28. Making bonfires \\
\hline 4. Ring-o-levio & 29. Shooting dice \\
\hline 5. Hide and seek & 30. Teasing \\
\hline 6. Playing potsy & 31. Taking things apart \\
\hline 7. Hop scotch & 32. Playing with electrical toys \\
\hline 8. Jumping rope & \(\qquad\) 33. Building model planes and ships \\
\hline 9. Going on swings & 34. Experimenting with chemicals \\
\hline 11. Stickball & 36. Modelling with clay \\
\hline 12. Baseball & 37. Drawing and painting pictures \\
\hline 13. Basketball & 38. Singing \\
\hline 14. Football & 39. Playing a musical instrument \\
\hline 15. Handball & 40. Working with woodcarving or leathercraft \\
\hline 16. Swimming & 41. Knitting or crocheting \\
\hline 17. Going for walks & 42. Sewing clothes \\
\hline 18. Riding a bicycle & 43. Cooking or baking \\
\hline 19. Flying a kite & 44. Making fudge or candy \\
\hline 20. Walking in woods & 45. Stringing beads \\
\hline 21. Going to a museum of art & 46. Playing card games \\
\hline 22. Going to a concert & 47. Playing checkers \\
\hline 23. Listening to the radio & 48. Playing monopoly \\
\hline 24. Watching an athletic game & 49. Playing guessing games \\
\hline 25. Going to the movies & 50. Playing lotto or bingo \\
\hline
\end{tabular}
51. Playing with dolls
52. Playing school
53. Playing house
54. Playing doctor or nurse
55. Playing actor or actress
56. Reading comic books
57. Reading story books
58. Reading fairy tales
59. Reading sports stories
60. Reading scientific stories
61. Going to the library
62. Writing letters
63. Studying
64. Keeping a diary
65. Writing poems or stories
66. Making a scrap-book
67. Collecting stamps or coins
68. Collecting shells or butterflies
69. Keeping things neat
70. Going to a museum of natural history
71. Visiting relatives
72. Visiting a friend
73. Going to a party
74. Just talking
75. Being with a club or gang
76. Social dancing
77. Having a date
78. Driving a car
79. Playing postoffice
80. Being with a group of boys and girls
81. Being the leader of a group
82. Arguing with someone
83. Discussing politics
84. Having a fight
85. Being in a debate

Write in any other thing you like to do:
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)

\section*{STUDY-HABIT INVENTORY (33:92-93)}

Grades VII, VIII, IX
Name \(\qquad\) Date \(\qquad\) Grade \(\qquad\)
DIRECTIONS: The questions that follow are prepared to help you make a self-analysis of some of your study habits and attitudes. Read each question very carefully and then answer it sincerely. Do not stop to think, but answer upon the first impulse that comes to your mind. If you stop to think, you are likely to answer the question the way you think it ought to be answered. But, since you are trying to make an analysis of your study habits and attitudes, your first impulse is best. Under no consideration will your answers affect your marks, or will they be seen by other students.

Indicate your answer to each question by drawing a line under either "Yes" or "No". You will have as much time as you need, but do not dawdle.

Yes No l. Can you distinguish materials that should be read carefully from those that may be scanned?
Yes No 2. Do you follow a regular time for preparing each lesson?
Yes No 3. Do you often ask others to help you with your lesson?
Yes No 4. If you do not understand the assignment, do you ask the teacher about it?
Yes No 5. Can you get your school work and still have time for other activities?
Yes No 6. Do you listen carefully to an assignment and write it down?
Yes No 7. Do you daydream when you should be studying?
Yes \(\overline{N o}\) 8. Are there many words you do not know in your lesson?
Yes No 9. Do you make many mistakes because you hurry too much?
Yes No 10. Do you use the dictionary frequently?
Yes \(\overline{N o}\) ll. Do you have much trouble getting your lessons?
\(\overline{Y e s}\) No 12. Can you make a summary or outline of your lesson?
\(\overline{Y e s}\) No 13. Can or do you find the main points of a lesson?
Yes No 14. Do you read so slowly that you cannot prepare your lessons in the given time?
Yes No 15. Do you try to find out why you have trouble with your lessons?

Yes No 16. Do you give enough time to subjects you do not like?
Yes No 17. Can you outline a special topic and make a good talk on it?
Yes No 18. Do you frequently have dates or go to parties, motion pictures, or meetings on school nights?
Yes No 19. Do you often make poor marks on a test because you get nervous?
Yes No 20. Do you review your notes carefully before an examination?
Yes No 21. Do you read stories when you should be studying?
Yes No 22. Do you know how to take notes that will help you?
Yes No 23. Do you have so much work to do outside of school hours that it affects your schoolwork?
Yes No 24. Can you use the references in the library effectively in preparing a paper or speech?
Yes No 25. Do you know when you should read fast and when you should read carefully?
\[
\begin{aligned}
0-5 & \text { superior } \\
6-10 & \text { average } \\
11-25 & \text { below average }
\end{aligned}
\]
APPENDIX B
GROUP AND INDIVIDUAL PROGRESS RECORDS
1. Grouping Record2. Record for Reporting Group Progress3. Records for Reporting IndividualProgress
4. Teacher-Pupil Record for the Evaluation of Group Progress

\section*{GROUPING RECORD}

These group records are to be passed on to the new teachers. Reading is used in this example. Use one sheet of paper for each group. Also have separate records for isolates not in any group.

\section*{GROUP I}

Level (or reader and page) where the group studies successfully.

Names of Children:
(sentence or two about each)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)

Where They Are Working and Any Problems:
\(\qquad\)
\(\qquad\)
\(\qquad\)

\section*{GROUP CHAIRMAN'S REPORT (35:533-34)}

Name of Group Captain

\section*{Date}

Names of Group Members
Name

Behavior

Behavior
Behavior
Behavior
Behavior

Behavior

Activities
(Check notes
taken at each place visited.)

10:00 to 11:00
\(\qquad\)
\(\qquad\)
\(\qquad\)
11:00 to 12:00
\(\qquad\)
\(\qquad\)
\(\qquad\)
12:00 to 12:30

12:30 to 1:15
\(\qquad\)
\(\qquad\)
\(\qquad\)

Underline each word that applies to your group:
Good-humored Courteous Agreeable Dependable Strictly A-OK
Choose one person from your group who would make a good group captain on another trip.
Name of person chosen:
List anyone below who did not behave properly. Tell why.
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)

Now ask the member of your group to tell how he rated you as a group captain.

Very good Will do Not good enough

\section*{DAILY READING REPORT*}

Name \(\qquad\)
Date \(\qquad\)

\section*{DAILY READING REPORT}
1. Pages read today: Total

From page to page \(\qquad\)
2. Title of book read:
3. Name of story or stories read:
4. Did you file a story report?
5. Did you file a work sheet?
6. Did you work with the teacher on reading skills today?
7. Did you read to the teacher or to a helper today?
8. Did you have something special in reading today?
9. Do you need special help with your reading? \(\qquad\)
\(\qquad\)
*Received from Dr. Jettye Fern Grant in "Individualizing Instruction."

Name \(\qquad\)


A form for recording independent reading.

Name: \(\qquad\) Date: \(\qquad\)
I. Working in groups:
l. Be responsible for my share of the work
2. Stick to the work that needs to be done
3. Share information and materials with other members
II. Class discussion:
1. Take active part
2. Be quiet while others are talking
3. Listen to other peoples ideas
4. Friendly
III. Working on problems:
l. Collect information from many sources
2. Select best material to solve the problem
3. Collect enough material to solve the problems
4. Be able to use the Readers' Guide
5. Be able to use the card catalog
6. Write notes in own words
IV. Reporting to the class:
l. Organize material so that it is smooth
2. Give reports without reading notes or paper
3. Speak clearly
4. Use good English
5. Illustrate the material
_Total Points
Average
(Use 5-4-3-2-1 scale)

\section*{APPENDIX C}

\section*{INSTRUCTIONAL SEQUENCES AND CHECK LISTS}
1. Condensed Reading Sequence of Instruction
2. Check Lists of Reading Skills and Abilities
3. Condensed Arithmetic Sequence of Instruction
4. Check Lists of Arithmetic Skills and Abilities
5. Condensed Language Sequence of Instruction
6. Dictionary Skills
7. Basic Spelling Vocabulary
8. Sequential Steps in Problem Solving

\section*{SUMMARY OF READING SKILLS AND ABILITIES}

FOR PRIMARY CLASSES*

\section*{PRE-READING}
1. Tells stories from pictures.
2. Follows directions.
3. Recognizes likenesses and differences in word forms, letters, pictures.
4. Recognizes likenesses and differences in sounds of words; recognizes rhyme.
5. Matches lines in a chart story; builds up a familiar story in chart with strips.
6. Has mechanics of left-to-right and top-to-bottom.

\section*{PRE-PRIMER}
1. Distinguishes between sounds of different initial consonants and final consonants (sounds).
2. Has sight vocabulary adequate to begin reading in primer.
3. Comprehends word and sentence meanings.
4. Uses picture clues, word-form clues and context clues to get new words.
5. Gets main idea; notes details; recognizes person speaking and spoken to; can make inferences, anticipate outcomes, interpret emotional reactions of characters.
6. Recognizes words formed by adding \(s\) to the root; understands their meanings.

\section*{PRIMER}
1. Can relate sound of single initial consonants to appropriate letter symbols.
2. Can get new words by substitution of consonant letters.
3. Recognizes compound words made up of two known roots.
4. Recognizes words formed by adding 's to known root words.
5. Recognizes relationships in size, color, use, class, place time, etc.
6. Interprets material through oral reading, playmaking, and storytelling, etc.
7. Recognizes motives of story characters.
8. Relates reading to personal experience.
*Summary received from Dr. Jettye Fern Grant in "Modern Reading Program."

\section*{FIRST READER}
1. Can relate sound of final consonants to corresponding letters.
2. Can relate sound of th, ch, sh, and wh to the corresponding letter combinations.
3. Can get new words by substitution of final consonants.
4. Can get difficult consonant sounds not fully learned earlier: v, y, j, etc.
5. Can identify the place and time of the story from context and pictures.
6. Can interpret the behavior of story characters.
7. Recognizes contractions and words formed by adding \(d\), ed, and ing to unchanged roots.

\section*{SECOND READERS}
1. Can recognize vowel sounds by ear (long vowels, ar and er come first) - 18 in all.
2. Knows principles for determing vowel sounds in accented syllables (visual clues).
3. Can relate sounds of consonant blends to corresponding two-letter combinations.
4. Can get new words through substitution of single consonants, digraphs, and blends in both initial and final positions in words.
5. By the end of second reader level, knows two- and threeletter blends in initial and final positions, diphthongs, vowel digraphs, sounds of final double consonants.
6. Recognizes words made by adding endings to unchanged root by changing \(y\) to \(i\), etc.

\section*{THIRD READERS}
1. Has perception of accent, syllabication and the schwa sound (by hearing).
2. Recognizes all contractions and their meanings.
3. Understands and recognizes at sight the common prefixes and suffixes; also endings.
4. Can apply principles of syllabication to two-syllable words.
5. Can apply principles of determining accent to two-syllable words.
6. Can analyze words into syllables, find the accented syllable, determine the vowel sound in the accented syllable, determine the vowel sound in the unaccented syllable, and can blend the parts into a word whole--then check it in context.
7. Can identify roots in inflected and derived word forms.
8. Knows alphabetical sequence, parts of alphabet; and can alphabetize words.

PARTICIPATES IN PROGRAM OF LITERATURE APPRECIATION AT ALL LEVELS.

MASTERS APPROPRIATE SIGHT VOCABULARY AT ALL LEVELS.

\section*{SUMMARY OF READING SKILLS AND ABILITIES}

\author{
FOR INTERMEDIATE CLASSES*
}

\section*{FOURTH READERS}
1. (T) This is primarily a time for consolidation; the child should develop the ability to apply independently at this level all word-attack skills taught earlier. In addition, they should apply comprehensional abilities to more complex materials. Vocabulary development (meaning and recognition) should keep pace with the level of the reader, so that no child has a learning load per page of more than three items on the average, or four in any specific instance. Workbook assignments at all levels should be easy enough for the child to do independently--while working alone, not under teacher's supervision--with very few errors. If he makes many errors or requires frequent assistance, usually one of two things is wrong. The work is too hard, or the teacher is not giving the assignments in such a way that the child knows what he is expected to do. If the work is too hard, give more attention to the developmental lessons; follow the teacher's manual closely.
2. (T) At this level use newspapers, magazines, reference materials with simple vocabulary, dictionary, and material from content subjects for reading instruction. Have the pupils prepare oral and written summaries of material read with a definite beginning, middle, and end.
3. (P) Identifies problem of the story.
4. Recognizes simultaneous actions in a story which occur at different places.
5. Understands figurative speech, author's style, rhythm and alliteration.
6. Begins to read and enjoy more penetrating books of imformative type, simple plays, and poetry.
7. Synthesizes ideas gained from many sources, including reading.
8. Learns specific phonetic elements: long o before ld; long \(i\) before ght, long i before nd, difficulty caused by letter v; difficult blends and digraphs; special forms.

\footnotetext{
*Sumary received from Dr. Jettye Fern Grant in "Individualizing Instruction."
}
9. Distinguishes between fact and opinion.
10. Gets meaning of words by analyzing prefix, root, and suffix or ending.

\section*{FIFTH READERS}
1. Develops special instruction in reading; has wide reading interests also.
2. Knows how to interpret or make: outline; chart; graphs; tables; time lines; maps; diagrams; scale models.
3. Can use table of contents, index, card file, and other reference aids to locate desired information; understands Dewey decimal system.
4. Can analyze poly-syllabic words.
5. Combines phonetic analysis and structural analysis to get new words.
6. Can make a reasonable guess at spelling of derived and inflected forms from the root.
7. Can make reasonable guess at spelling of root words from derived or inflected forms.
8. Becomes increasingly skillful in interpreting figurative language.
9. Recognizes symbolism, notes author's style, recognizes the different types of literature.
10. Is familiar with many masterpieces of children's literature and knows titles and authors.
11. Memorizes all or parts of favorite poems.
12. Interprets material read in a great variety of ways and in more skillful ways.
13. Follows current events by reading newspaper regularly; is familiar with other types of good, current reading material.

\section*{SIXTH READER}
1. Obtains more subtle meanings from reading; gets below the level of literal interpretation into some feeling for the author's purpose and the real beauty and literary merits of the content.
2. Reads quickly and skillfully when this is appropriate; reads with great exactness when this is needed.
3. Adjusts reading mechanics to suit purpose and nature of material.
4. Applies all word-attack skills independently; knows when to look up a word in the dictionary; uses dictionary to verify guesses.
5. Can select appropriate definition, synonym, antonym to fit context.
6. Can use job card and other independent work assignments effectively.
7. Undertakes reading assignments without teacher direction.

\section*{BARBE READING SKILLS CHECK LIST}

FOURTH LEVEL READING SKILLS (9:182-83)
(Last Name) (First Name) (Name of School)
(Age)
(Grade Placement)
(Name of Teacher)
I. Vocabulary:
A. Word Recognition
1. Introduce new words in content fields
2. Recognizes similarities of known words
a. compound words _d. plurals
b. root words - e. hyphenated words
c. suffixes, prefixes - f. contractions
3. Recognizes unusual characteristics of words
B. Word Meaning
1. Develop ability in getting meaning from context
2. Use new words in sentences to show meaning -
3. Knows punctuation
a. italics c. parenthesis
b. quotation marks \(\qquad\) d. exclamation marks
\(\qquad\)
C. Review Dolch Words
II. Word Attack Skills:
A. Structural analysis
1. Knows rules for syllables
a. Each syllable must contain a vowel and a single vowel can be a syllable
b. Suffixes and prefixes are syllables with meanings of their own
c. The root word is not divided
d. If the first vowel is followed by two consonants, the first syllable usually ends with the first consonant (examples: pen cil)
e. If the first vowel is followed by a single consonant, the consonant usually begins the second syllable (example: a maze, am ple)
f. If a word ends in le preceded by a consonant, that consonant begins the last syllable
g. The letter x always goes with the preceding vowel to form a syllable (example: ex it)
h. The letters ck go with the preceding vowel and end the syllable (example: chick en)
2. Knows accent clues
a. The first syllable is usually accented, unless it is a prefix
b. Beginning syllables de, re, be, in, and a are usually unaccented
c. Endings that form syllables are usually unaccented (run ning)
d. Ck following a single vowel is accented (example: jack et)
3. Teach these suggested suffixes and prefixes: a. Suffixes:
ness (being) sickness
    ment (result of)
    ward (in direction of)
    ous (full of)
    ious (abounding in)
    eous
    et (little)
    able (capable of being)
    ible
    ic (like, made of)
    ish (like)
    ant (being)
    ent (one who)
    age (collection of)
    ance (state of being)
    ence (state or quality)
    wise (ways)
    ling (little)
    ty (state)
    ity (denoting action)
    ion (condition or quality)
b. Prefixes:
    dis (not, apart)
    in (not)
    mis (wrong)
    anti (against)
    non (not)
    com (with)
    con (with)
    pre (before)
    super (over)
    tri (three)
    sub (under)
    post (after)
    ab (from)
\begin{tabular}{|c|}
\hline sickness movement backward joyous gracious \\
\hline leaflet \\
\hline capable \\
\hline credible \\
\hline magic \\
\hline foolish \\
\hline vacant \\
\hline president \\
\hline baggage \\
\hline disturbance \\
\hline violence \\
\hline crosswise \\
\hline uckling \\
\hline unity \\
\hline vicinity \\
\hline pleasure \\
\hline action \\
\hline dismiss \\
\hline invade \\
\hline mistake \\
\hline anticlimax \\
\hline nonsense \\
\hline combine \\
\hline connect \\
\hline prepare \\
\hline superior \\
\hline tricycle \\
\hline submarine \\
\hline postscript \\
\hline abnormal \\
\hline
\end{tabular}
\begin{tabular}{ll} 
trans & (across) \\
em & (in) \\
de & (from) \\
inter & (between) \\
pro & (in front of) \\
ex & (out of or out) \\
en & (in) \\
ob & (against) \\
per (fully, through)
\end{tabular}
\begin{tabular}{ll} 
translate \\
embark \\
depart \\
interurban \\
promote \\
explain & \(=\) \\
enter \\
object \\
perfect & \(=\) \\
& \(=\) \\
& \(=\)
\end{tabular}
B. Phonic analysis
1. Review phonic skills
a. Single consonants and blends
b. Short and long vowels
c. By vowel teams:
\begin{tabular}{ll} 
ee & au \\
ea_- & aw \\
ai_- oa_ & 00
\end{tabular}
oi
oy \(\qquad\)
ou
ow \(\qquad\)
2. Review Vowel Rules
a. In attacking a vowel sound try first the short sound; if the word then doesn't make sense try the long sound.
b. Vowels are usually short when they appear as single vowels and are followed by a consonant.
c. Vowels are usually given the long sound when they appear alone and are the last letters of a word.
d. When two vowels appear together in a word, the first vowel is long and the second is silent.
e. In short words containing two vowels where one of the vowels is a final e, the first vowel will have a long sound while the final e is silent.
C. Training in use of dictionary and glossary
l. As taught on third grade level.
a. Review order of letters in alphabet.
b. Review the alphabetical arrangement of words.
2. Teach the division of dictionary to determine in which \(1 / 3\) or \(1 / 4\) the word may be found.
3. Teach the meaning and use of the phonetic spelling that follows in parenthesis each word in the dictionary.
4. Teach the meaning and use of the phonetic spelling and the use of the pronunciation key given at the bottom of every page.
5. Teach the selecting of meaning which fits best according to the context in which the word is used.
6. Teach the meaning and use of guide words.
7. Teach the meaning and use of the secondary accent mark.
III. Comprehension:
A. Finding the main idea
l. Choosing titles for material read
2. Summarizing
3. Can identify key words and topic sentences.
B. Finding details
1. Finding specific information
2. Interpreting descriptive words and phrases
3. Selecting facts to remember
4. Selecting facts to support main idea
5. Using study guides, charts, outlines
6. Verifying answers
7. Arranging ideas in sequence.
C. Creative reading
1. Able to interpret story ideas (generalize)
2. Able to see relationships
3. Able to identify the mood of a reading selection
4. Able to identify author's purpose
5. Able to identify character traits
D. Formal outlining
1. Form
a. Main ideas (I, II, III)
b. Subordinate ideas ( \(A, B, C\) )
2. Talking from an outline
IV. Oral Reading:
A. Review previously taught skills
B. Eye-voice span of three words

FIFTH LEVEL READING SKILLS (9:192-93)
(Last Name) (First Name) (Name of School)
(Age) (Grade Placement) (Name of Teacher)
I. Vocabulary:
A. Word recognition of vocabulary in content areas:

Social Studies English Arithmetic Science Miscellaneous

B. Meaning of words
1. Interpreting word meanings
2. Semantics
3. Synonyms, antonyms, hononyms, heteronyms
4. Knows abstract meanings of words
5. Understands figurative and colorful expressions
6. Understands colloquial speech
II. Word Attack Skills:
A. Phonics skills
1. Syllabication
a. Each syllable must contain a vowel and a single vowel can be a syllable.
b. The root or base word is a syllable and is not divided.
c. Blends are not divided. (th str)
d. Suffixes and prefixes are syllables. (dust y, in come)
e. If the vowel in a syllable if followed by two consonants, that syllable usually ends with the first consonant.
f. If the vowel in a syllable is followed by only one consonant, the syllable usually ends with a vowel.
g. If a word ends in le, the consonant just before the 1 begins the last syllable.
\(h\). When there is an \(r\) after a vowel, the \(r\) goes with the vowel to make the "er" sound. (er ir ur)
2. Vowel sounds (review long and short sounds)
a. When there is only one vowel in a word or syllable, the vowel is short.
b. When there are two vowels in a word or syllable the first is long and the second is silent.
3. Accent
a. In a word or two or more syllables, the first syllable is usually accented unless it is a prefix.
B. Dictionary
1. Alphabetization
a. Division into quarters and thirds.
b. Classifying words by second, third, and fourth letters.
2. Using a dictionary.
a. Recognize and learn abbreviated parts of speech as n.=noun; v.=verb; adj.=adjective; adv.=adverb.
b. Learning the preferred pronunciation.
3. Use of guide words.
4. Syllabication and accent.
5. Interpreting diacritical markings. (bottom of page)
6. Interpreting key to pronunciations. (bottom of page)
7. Interpreting phonetic re-spellings.
8. Cross references.
9. Plurals -- irregular. (deer, deer shelf, shelves)
10. Comparative and superlative adjectives. (many, more, most)
11. Change in accent and its effect on pronunciation and meaning of words. (pre'sent, present')
12. Secondary accent.
13. Parts of a verb. Tenses -- present and past.
14. Adverbs derived from adjectives. (ly ending as a clue or help.)
C. Glossary
1. Dictionary of words for one particular book.
2. Use of guide words.
3. Find meanings to understand what is being read.
D. Context Clues
1. Review using context clues.
2. Review associating ideas with words.
3. Review associating ideas with characters.
4. Sentence structure. (Noun, verb)
5. In poetry. Rhythm scheme can sometimes help.
III. Comprehension:
A. Locating information
1. Table of contents.
a. Examine tables of contents of several books.
b. List titles and have pupils use table of contents to locate pages.
2. Examine books to find: title page, pictures, key, guide words, publisher, copyright.
B. Reference Materials
1. The encyclopedia
a. Topics arranged alphabetically.
b. Show meaning of characters on back of each separate volume.
c. Compare dictionaries and encyclopedias for differences of materials.
d. Pupils should know names of important children's encyclopedias.
2. The atlas and maps.
a. Examine atlas to find answers for questions on location, relative size, direction and distance.
b. Use maps to explain latitude and longitude. Compare with known facts about streets and highways.
3. Magazines and newspapers. Use to supply more re-
cent information than textbook could contain.
4. Knows proper use of dictionary.
5. Time tables.
a. Reading and interpreting.
b. Following directions.
6. Card catalogue.
a. Explain that every book has its place on the shelf.
b. Each class of books has its own call number.
c. Examine cards. Author, title, subject
d. Give practice in location of titles and call numbers.
7. Using a telephone book.
8. Catalogues.
C. Reading to organize
1. Outlining

Use Roman numerals and letters.
2. Establish a sequence. Pupils list sentences in the order of event.
3. Follow directions.
4. Summarize.
D. Note taking
1. From reading
2. From lectures
E. Reading for appreciation
1. To derive pleasure
2. To form sensory impressions
3. To develop imagery
4. To understand characters
a. physical appearance
b. emotional make-up
IV. Oral Reading:
A. Recognize and pronounce words with speed and accuracy.
B. Group words into meaningful phrases.
C. Interpret marks of punctuation accurately.
D. Re-express to an audience the meaning and feelings expressed by an author.
E. Express emotion sincerely.
F. Read in a pleasant, well-modulated voice.
G. Read with poise and self-confidence.
H. Dramatize portions of the story.
I. "Televise" or give radio version of story incidents.
J. Take part in a stage version of a story.
K. Verify answers to questions.
L. Interpret characterizations.
M. Interpret word pictures.
N. Interpret general mood of text. (e.g.: humor - suspense)
O. Interpret sensations given by words.
P. Interpret the organization of text.
1. Main thought in the paragraph.
2. Main events in sequence.
3. Main heads and sub-heads in outline.
4. Directions for carrying out an activity.

\section*{BARBE READING SKILLS CHECK LIST}

SIXTH LEVEL READING SKILLS (9:204-5)
(Last Name) (First Name) (Name of School)
(Age) (Grade Placement)
(Name of Teacher)
I. Vocabulary
A. Word recognition
l. Context clues
a. How the word is used in a sentence.
b. Function of word.
2. Picture clues.
a. Visual impressions of words.
b. Configuration.
3. Language rhythms.
a. Rhyming clues.
b. Appreciation for general rhythm of well-expressed ideas.
B. Prefixes
\(\frac{\text { Prefix }}{\mathrm{ab}} \frac{\text { Meaning }}{\text { from, away }}\)
an without, not
ad to, toward
ante before
bi
circum two, twice around
de
dis
from, down from
dia through, around
ex out of, from
im not, in
il, un in, ir into, not
inter between
in, en in, into, among
intro within, against
\begin{tabular}{|c|c|}
\hline Prefix & Meaning \\
\hline mis & wrong, wrongly \\
\hline non & not \\
\hline pan & whole, all \\
\hline per & fully, through \\
\hline peri & around, about \\
\hline post & after, behind \\
\hline pre & before \\
\hline pro & for, in front of \\
\hline re & back, again \\
\hline se & aside \\
\hline semi & half, partly \\
\hline sub & under \\
\hline super & over, above \\
\hline trans & beyond, across \\
\hline tri & three, thrice \\
\hline un & not \\
\hline
\end{tabular}

Suffixes
able, ible
acy, ace, ancy, ance
an, ean, ian
age
ant
er, ar
ary
ante
en
ence
ent
full
fy, ify
hood
ic
ice
id
ion
ize, ise
ist, ite
ity, ty
ive
less
ly
ment
ness
or, ar, er
ory
ose, ous
some
ward
y

Meaning
Capable of being
state of being
one who, relating to
act or condition
n.-one who
adj.-being
relating to, like
n.-one who (Place where)
adj.-relating to
one who is little, made
state of quality
n.-one who
adj.-being
full of
to make
state, condition
like, made of
that which, quality or state of being
being in a condition of
act or state of being
to make
one who
state
relating to
without
in a way
act or state of being
state of being
one who, that which
abounding in
full of
turning to, in direction
like or full of
(Prefixes and suffixes list prepared by Ruth Strang)
4. Initial and ending sounds.
a. Listening for beginning sounds.
b. Completing sounds of words.
C. Word Meaning:
l. Multiple meanings.
2. Associating words and feelings.
3. Formal and informal language.
a. Speech pattern.
b. Level of language.
4. Recall.
a. Aided.
b. Unaided.
5. Hyphenated words.
6. Synonyms -- same or nearly same.
7. Homonyms -- pronounced same -- different meaning and spelling.
8. Antonyms -- opposites.
9. Heteronym -- pronounced differently -- same spelling.
10. Interpreting colloquial and figurative expressions. ll. Enriching imagery.
II. Word Attack Skills:
A. Phonic and structural characteristics of words.
1. Initial consonants - word families - simple endings.
2. Consonant blends and short and long vowels.
3. Syllabication, prefixes, suffixes.
4. Teams - oi, oy, aw, au.
B. Vowel sounds.
1. Vowel rules:
a. When there is only one vowel in a word or syllable the vowel is short.
b. When there are two vowels in a word or syllable, the first vowel is long and the second is silent.
c. When there are two vowels together, the first vowel is long and the second is silent.
2. Rule I -- Every syllable has at least one vowel in it. e.g. ever, never, children.
3. Rule II -- Two vowels in a word or syllable -- first is long, second is silent. kit - kite; at - ate.
4. Rule III -- When two vowels are together, the first is long and the second is silent. ("ou" an exception) mail, meat, pie, boat.
5. Blended sounds of vowel forms. The combination of au and aw makes a sound like awe. \(O u\) and ow make the sound "ow" like when you are hurt. \(O y\) and oi make sound like boy.
C. Syllabication.
l. Rules for syllables:
a. Each syllable must have a vowel and a single vowel can be a syllable.
b. The root word is a syllable and not divided.
c. Blends are not divided (th, str, wh, etc.)
d. Suffixes and prefixes are syllables.
e. Suffix - ed if preceded by a single d or \(t\) usually forms separate syllable. (rested like rest ed)
f. If vowel in a syllable is followed by two consonants, the syllable ends with the first consonant.
g. If vowel in a syllable is followed by only one consonant, the syllable ends with a vowel.
\(h\). If a word ends in le, the consonant just before the \(l\) begins the last syllable. (ta ble, han dle)
i. When there is an \(r\) after a vowel, the \(r\) goes with the vowel to make the "er" sound.
D. Accents. (Rules)
1. In a word of two or more syllables, the first syllable is usually accented unless it is a prefix.
2. In most two syllable words that end in a consonant followed by \(y\), the first syllable is accented and the last is unaccented.
3. Beginning syllables de, re, be, er, in, and a are usually not accented.
4. When a suffix is added, the accent falls on or within the root word.
5. Endings that form syllables are usually unaccented.
6. When a final syllable ends in le, that syllable is usually not accented.
E. Possessives.
F. Contractions.
G. Silent letters.
H. Dictionary skills.
I. Glossary.
III. Comprehension:
A. Outlining.
1. Note taking.
2. Sequence of ideas or events.
3. Skimming.
a. Locating facts and details.
b. Selecting and rejecting materials to fit a certain purpose.
4. Main ideas of paragraphs.
5. Interpreting characters' feelings.
6. Topic sentences.
B. Following directions.
C. Drawing conclusions.
D. Reading for verification.
E. Locating information.
1. Reference materials in reading. a. Graphs.
b. Maps - reading and interpreting in detail.
c. Encyclopedias - locating materials or research.
d. Headings and other typographical aids.
2. Library skills.
a. Card catalogs, use of. (Cross reference)
b. Book classifications.
c. Care of books and other materials.
3. Periodicals or sources of information.
a. Authors.
b. Introductions - author's.
c. Table of contents.
d. Index - use of.
e. Glossary.
f. Title page.
g. Copyright.
h. Date of publication.
i. Footnotes.
j. Tables.
4. Resource materials. a. Packets and pictures.
b. Charts and maps - detail.
5. Resource people.
F. Rate of Reading.
1. Different rate for different purpose.
2. Comprehension at high level.
G. Critical reading.
IV. Oral Reading:
A. Choral reading and poetry.
1. Pronunciation.
2. Phrasing.
3. Rhymes.
4. Interpretations.
B. Listening appreciation.

\title{
READING ANALYSIS CHECK LIST (39)
}

\author{
Albert J. Harris
}

Name \(\qquad\) Date of rating \(\qquad\) Date of birth \(\qquad\)
Latest standardized reading test Rag. Age \(\qquad\) Rd. Gr. \(\qquad\)
Textbook Sample Test:
Date \(\qquad\) Independent level \(\qquad\) Instructional

Level \(\qquad\) Frustration level \(\qquad\)
Intelligence test:
Date \(\qquad\) IQ \(\qquad\) Estimated present MA

Teacher's estimate or reading capacity: grade \(\qquad\) age \(\qquad\)
Rating: normal progress \(\qquad\) severe disability \(\qquad\)
Reading group placement:
Group \(\qquad\) Work seems: too hard \(\qquad\) too easy \(\qquad\)

Silent Reading Characteristics
Moves lips_, mumbles__ moves head__, points with finger \(\qquad\) "poor posture \(\qquad\) ,book too close to eyes \(\qquad\) book held unsteadily \(\qquad\) ,fidgety \(\qquad\) ,attention poor \(\qquad\) eyes wander from book \(\qquad\) , poor eye movements \(\qquad\)
Comprehension Problems
Generally poor comprehension \(\qquad\) , special difficulty with: main ideas \(\qquad\) , details \(\qquad\) , sequence \(\qquad\) ,cause and effect
\(\qquad\)
\(\qquad\) , too literal interpretation \(\qquad\) , cannot predict outcomes \(\qquad\) , uncritical \(\qquad\) ,other:

\section*{Oral Reading Characteristics}

Fluency. Word by word
\(\qquad\) very slow rapid, ,rapid, jerky , monotone \(\qquad\) ,ignores punctua,very slow_,rapia, jerky \(\qquad\) ,skips lines \(\qquad\) , loses
place \(\qquad\) , scanty eye-voice span \(\qquad\)
Word Recognition, General. Sight vocabulary small \(\qquad\) , errors on common words \(\qquad\) , inserts words , omits words ,reverses word order \(\qquad\) , confuses specific pairs of words (list):

Use of Context. Excessive guessing \(\qquad\) , substitutes words of similar meaning \(\qquad\) , omits or skips unknown words \(\qquad\) ' substitutes whole phrases \(\qquad\) , fails to use context \(\qquad\) substitutes words which spoil meaning \(\qquad\) ,fails to correct errors when meaning is spoiled \(\qquad\)
Method of Attacking Unknown Words. Does not try \(\qquad\) spells ,attempts to sound, using: single letters \(\qquad\) phonograms \(\qquad\) , syllables _, , Uses configuration, size, shape \(\qquad\) , attends mainly to: beginnings \(\qquad\) , middles endings \(\qquad\) , attempts structural analysis: \(\qquad\) 'middles words , roots \(\qquad\) , prefixes \(\qquad\) ,suffixes \(\qquad\) ,syllables
\(\qquad\) , lacks flexibility in word attack

\title{
Specific Word Attack Difficulties.
} ination: consonants , vowels \(\qquad\) Poor auditory discrimdifficulty \(\qquad\) , reversal tendency \(\qquad\) rhymes \(\qquad\) ,blending gaps in phonic knowledge: consonants letter confusions letter confusions _, ter blends ,short vowels \(\qquad\) , long vowels consonant let, \(c\) and \(g\) , silent letters \(\qquad\) , word families diphthongs, difficulty in placing accent ,rules of syllabication
\(\qquad\) , exceptions to phonic rules \(\qquad\)
Use of Voice. Nervous, tremulous \(\qquad\) , too loud \(\qquad\) , too soft \(\qquad\) ,too high , too low \(\qquad\) - generally poor enunciaLion \(\qquad\) ,slights word endings \(\qquad\) ,slurs words together ,mispronounces particular letters \(\qquad\) , sing-song \(\qquad\) , local dialect \(\qquad\) , foreign accent \(\qquad\)
Posture During Oral Reading. Poor posture \(\qquad\) , book too close to eyes moves head \(\qquad\) ,holds book unsteadily
\(\qquad\) , points with finger \(\qquad\) , fidgety \(\qquad\)
Independent Reading
Enjoys \(\qquad\) , accepts \(\qquad\) , dislikes \(\qquad\) , comprehension poor \(\qquad\) recall scanty , reports honestly \(\qquad\) , tends to exaggerate
\(\qquad\) ,chooses books that are: too hard \(\qquad\) ,too easy \(\qquad\) , poor quality Special interests:

A check list for concise recording of a large amount of information about a child's reading.
1. Comparison with silent reading
a. Oral reading poorer than silent
b. Oral reading faster than silent
c. Comprehension poorer after oral
2. Fluency
\(\qquad\) a. Word by word reading
b. Monotone: lack of meaningful inflection
c. Ignores punctuation
d. Phrases poorly
e. Hesitations
f. Repetitions
g. Very slow
h. Rapid and jerky
i. Loses place
3. Word recognition, general
a. Small sight vocabulary
b. Errors on very common words
c. Unsuccessful in solving unknown words
d. Inserts words that are not there
e. Omits words
f. Skips lines
4. Use of context
a. Excessive guessing from context
b. Fails to use context as word recognition aid
c. Substitutes words of similar meaning
d. Substitutes words of similar appearance, different meaning
e. Omits or skips unknown words
f. Makes errors which spoil or change meaning
g. Makes errors which produce nonsense
h. Reads words correctly in context which he misreads in isolation
5. Attack on unknown words
a. Spells
b. Attempts to sound out: \(\qquad\) single letters \(\qquad\) phonograms \(\qquad\) syllables
c. Uses configuration, size, and shape
d. Attends mainly to one part of word: \(\qquad\) middle ending
e. Uses structural analysis: \(\qquad\) prefixes \(\qquad\) roots endings
f. Kacks flexibility in word attack g. No method of word attack
6. Specific difficulties in word attack
a. Lacks auditory discrimination
b. Unable to blend
c. Unclear visual perception
d. Reversal tendency
e. Letter confusions
f. Gaps in phonic knowledge
consonants \(\qquad\) consonant blends \(\qquad\) short vowels long vowels diphthongs word families syllabication \(\qquad\) prefixes \(\qquad\) suffixes
7. Use of voice
a. Enunciation generally poor
b. Leaves off or slights word endings
c. Slurs and runs words together
d. Sound substitutions
e. Stuttering or cluttered speech
f. Voice sounds nervous or strained
g. Volume: too loud
h. Pitch: too high \(\qquad\)
i. Peculiar cadence
j. Monotone
8. Postural habits
a. Holds book too close
b. Posture poor while reading
c. Moves head while reading
d. Book held unsteadily
e. Points with finger

A CHECK LIST FOR RECORDING THE ORAL READING
DIFFICULTIES OF A CLASS (39:195)

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SUMMARY OF ARITHMETIC SKILLS (11:2-8)
Bellevue Curriculum Guide -- 1963
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KINDERGARTEN
It is advised that a very intuitive approach to situations be employed at this early stage. Situations should include experience in:
1. Relationships, rational vocabulary
2. Set, subsets, elements, \((1,1)\) correspondence between elements of sets and number names
3. Measurement -- estimation and use of approximate units for length, area, volume, time, weight
4. Writing of single digit numerals, and some others as appropriate
5. Perception of properties of shapes -- linear, plane, solid
6. Beginning of operations of numbers (addition, subtraction, multiplication, division)
7. Equality, inequality
8. Order

FIRST GRADE

Include all of kindergarten work plus the study of integers.
1. Introduce children to integers from 0 to 50 very thoroughly; from 50 and beyond into the thousands as is appropriate
2. Operations:
a. Addition -- commutativity, associativity
b. Subtraction -- use negative numbers
c. Multiplication -- as repeated addition; introduction of commutativity, associativity including zero and one, factors, multiples, primes, composites, odds, evens
d. Division -- as repeated subtraction with the remainders and as general fractions, introduce children to noncommutative nature of division
3. Squaring: Difference of squares, sum of squares
4. Factors: \(1 / 2\) of \(10,2 / 3\) of 12 , etc. using the whole numbers considered
5. Enumeration in base 10
6. Number line for operations
7. Applications: Simple story problems involving money, weights, and measures; time

SECOND GRADE
Include all of Kindergarten and First Grade work.
1. Observation of plane and solid figures, more precisely:
a. Sets of points, line, line segment, closed figures as circle, quadrilateral, triangle b. Topological properties of plane figures c. Intersections of lines, parallelism, perpendicularity, congruence, similarity, symmetry
2. Applications: More emphasis on applications to money, weights, and measures
3. Extension of all operations into binomials
4. Extension of work with fractions introduced as ordered pairs of numbers

\section*{THIRD GRADE}

Include all of Kindergarten, First Grade, and Second Grade work.
1. Place emphasis on extending procedures in addition, subtraction, multiplication, and division in a more formal manner
2. Multiplication of binomials and trinomials
a. Work on addition, subtraction, multiplication, and division tables of many kinds
b. Integration of these with work on factors, doubling, and symmetry
3. Fractions -- these are introduced as sets of ordered pairs of numbers
a. Include the addition and subtraction of fractions and fractions as operators on other fractions
4. Applications -- continuing creation and solution of applied problems

FOURTH GRADE
Include all of Kindergarten, First Grade, Second Grade, and Third Grade work.
1. Extension of procedures in all four basic operations
2. Computational practice for efficiency in:
a. Tests of divisibility
b. Use of decimals in addition, subtraction, multiplication, and division
c. Introduction of different procedures and the methods for addition, subtraction, multiplication, and division
3. Enumeration in bases other than 10
4. Plotting of simple fractions in a plane
5. Fractions: Multiplication and division

FIFTH GRADE
1. Extension of procedures in the basic operations. Exploration of different ways to add, subtract, multiply, and divide to deepen and extend knowledge of the structure of the operations and to facilitate computation. Stress the algebra of situations.
2. Study of structure of multiplication tables and other tables as well (addition, subtraction tables -- tables for other number bases)
3. Operations with fractions. Finding members of a set of equivalent fractions; adding, subtracting, multiplying, dividing
4. Reading and writing of decimal fractions. Extend work with money. Work with decimals, addition, subtraction, multiplication, division.
5. Reading and writing of percentages
6. Set theory and notation
7. More work with different number bases
8. Permutations, probability
9. Geometry, application
10. History of mathematics

\section*{SIXTH GRADE}
1. Numerals and number system
a. Mathematical structure -- number patterns
b. Factors and primes
c. Inequalities, number line, negative numbers addition, subtraction, multiplication, division
d. Exponents, logarithms
e. Making computing devices, nomographs
f. Theory of digital and analog computers
g. Modular arithmetic
h. Permutations -- Combinations -- Probability
i. Progression -- Arithmetic and geometry
2. Operations
a. Fractions: Addition, subtraction, multiplication, division -- greatest common divisor
b. Ratio, proportion, graphs of sets of ordered pairs
c. Decimal fractions, addition, subtraction, multiplication, division to ten-thousandths, change common fractions to decimals
d. Percentage
3. Sets and variables
a. Algebra of sets
b. Two variables and graphs
4. Measurement
a. Metric system -- story of measurement, other systems
b. Perimeter, area, volume
c. Statistics -- graphs, average, mean, mode
d. Speed
e. Perpetual calendar
5. Geometry
a. Definition -- "Geometric figure is any subset of the set we call space."
b. Vocabulary -- definition of point, line, line segment, plane, angle, parallel, perpendicular, triangle, etc.
c. Properties of plane and solid figures
d. Geo-boards
e. Similar triangles and trigonometry




A BASIC SPELLING VOCABULARY FOR ALL*
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline 1. & \[
\begin{aligned}
& 2 . \\
& \text { biue }
\end{aligned}
\] & 3. & 4. \({ }^{\text {about }}\) & 5 path &  & 7 safe \\
\hline ball & come & any & am & people & fruit & Saturday \\
\hline big & good-by & are & answer & poor & garden & save \\
\hline boat & he & at & back & pretty & glad & sea \\
\hline can & hello & away & because & rain & hammer & seem \\
\hline car & I & baby & before & run & hang & seen \\
\hline father & in & be & believe & sad & happen & serve \\
\hline for & is & black & best & say & hide & side \\
\hline funny & it & but & brought & sister & hole & sir \\
\hline little & like & could & came & sleep & hop & smart \\
\hline look & me & dinner & children & start & hot & son \\
\hline mother & one & doll & city & stay & hour & sound \\
\hline oh & please & eat & clean & step & hung & squirrel \\
\hline play & red & from & country & summer & just & stream \\
\hline see & saw & him & cream & sure & kitten & string \\
\hline work & school & keep & cry & tail & ladder & sudden \\
\hline a & she & let & did & take & lady & sun \\
\hline ask & three & letter & drop & teach & last & Sunday \\
\hline boy & two & long & easy & their & lay & supper \\
\hline day & we & Mr . & end & thought & lazy & taste \\
\hline dear & yellow & Mrs . & ever & warm & lesson & Thursday \\
\hline do & You & new & every & way & life & tiny \\
\hline down & were & night & fast & went & lock & tip \\
\hline find & what & now & feed & winter & loud & tomorrow \\
\hline five & where & Of & feet & won't & matter & trick \\
\hline four & yes & old & fine & would & may & trip \\
\hline get & happy & on & first & yet & met & truck \\
\hline girl & good & our & friend & always & middle & Tuesday \\
\hline go & white & out & front & apple & mine & turn \\
\hline have & who & over & gave & around & Monday & twenty \\
\hline help & well & read & green & been & naughty & wave \\
\hline here & wish & show & guess & better & need & Wednesday \\
\hline house & with & some & had & bite & paper & week \\
\hline how & your & soon & hard & block & party & whole \\
\hline jump & & store & hear & bottom & past & write \\
\hline know & & street & her & brave & pay & yard \\
\hline make & & tell & hurt & brick & pet & yesterday \\
\hline my & & thank & if & bring & pick & \\
\hline
\end{tabular}

\footnotetext{
*Received from Dr. Jettye Fern Grant in "Individualizing Instruction."
}
\begin{tabular}{|c|c|c|c|c|c|}
\hline 1. & \multirow[t]{3}{*}{2.} & 3. & 4. & 5. & 6. \\
\hline name & & that & joke & brother & picture \\
\hline next & & them & knew & brown & piece \\
\hline no & & then & late & butter & pink \\
\hline not & & there & laugh & button & plan \\
\hline said & & thing & left & catch & plane \\
\hline something & & think & lunch & cave & plate \\
\hline stop & & time & mean & clock & pony \\
\hline the & & today & minute & crack & puppy \\
\hline they & & too & morning & different & rabbit \\
\hline this & & town & much & does & rang \\
\hline two & & tree & must & drink & ready \\
\hline up & & us & \(0^{\prime} \mathrm{clock}\) & duck & rest \\
\hline walk & & was & once & fat & ribbon \\
\hline want & & when & paint & feel & rich \\
\hline & & & & felt & right \\
\hline & & & & flower & ring \\
\hline & & & & ground & rock \\
\hline
\end{tabular}

\title{
SEQUENCE OF INSTRUCTION FOR \\ ORAL AND WRITTEN LANGUAGE*
}

Basic and/or remedial instruction which will help the child to:
1. Oral expression

Relate an experience or tell a story so that others can understand exactly what happened
Use correctly such common words as saw, see, come, went, haven't any, have no, I, me, him, her, he, she, them, they
Keep to the subject when speaking extemporaneously
Feel at ease when speaking to a group
Enunciate correctly and distinctly
Increase his speaking content through vocabulary
Written expression
Write correctly all the letters of the alphabet (both in capital and small letters) in either manuscript or cursive form; this should include joining and ending the strokes if the child uses cursive handwriting
Write an original sentence in correct form, beginning the sentence with a capital letter and placing a period or question mark at the end
Dictate (or record on the tape recorder) an experience story of three or four sentences for the teacher to write on a chart or the chalkboard
Copy correctly from a chart or the chalkboard an experience story which he has dictated.
2. Oral expression

Carry on an intelligent conversation with his peers or his teacher
Stand before his class and relate an experience, tell a story and/or express an opinion so that other pupils understand what he means
Organize his thoughts and choose suitable words when giving descriptions or directions

\footnotetext{
*Received from Dr. Jettye Fern Grant in "Individualizing Instruction."
}

Write a simple experience story of three or four sentences
Start each sentence with a capital letter and begin all proper names with capital letters
Use the correct punctuation mark at the end of a written statement or question
Write a short friendly letter in correct form
Write Mr. and Mrs. correctly
Write his home address
3. Oral expression

Make up a story and tell it with some dramatic skill
Give explanations, descriptions and directions with clarity and brevity
Make an oral report based on material obtained from one or more of the following sources: personal experience an educational film or a movie; a story or book he has read; talking to a resource person
Contribute regularly to group discussions; take turns in speaking; think for himself; express opinions clearly

Written expression
Write an experience story of two or more paragraphs, using margins, paragraph indentations, capital letters, and punctuation marks
Use the correct form in writing a friendly letter, a business letter and in addressing an envelope.
Abbreviate days, months, and titles correctly
Write answers to questions which involve some personal thought and judgment
Write a brief summary of material read
Proofread his written work, detect and correct obvious errors
4. Oral expression

Speak courteously and effectively
Use most verbs and adverbs correctly
Express the same idea in a variety of ways
Make social introductions
Participate in general conversation involving people of different ages
Make telephone calls, carry messages, receive visitors, give directions, ask for information
Organize and present an oral report, using appropriate charts, pictures or other illustrative material
Take part in plays
Use his voice to express emotion, to indicate mood, to emphasize characterizations
Participate effectively in club meetings

Written expression
Use correct form when writing an invitation or a letter of request, thanks, acceptance or regret
Write a post card and address a package
Outline material to be used in writing a story or report
Keep minutes of a meeting
Write accurate descriptions
Write poetry
Use capital letters and punctuation marks correctly in writing conversation
Use the library effectively
5. Oral expression

Participates freely and effectively in all forms of oral expression:

In conversation:
express interesting ideas; show courteous interest in the remarks of others; ask questions which lead others to take part; express any disagreement courteously

In discussions:
awaits his turn; speaks only when he has a point to make; keeps to the subject being discussed; asks his questions courteously; accepts and gives criticism politely; listens carefully

In storytelling:
begins with a sentence that arouses the interest of his audience; uses vivid words and expressions; tells events in the right order; begins sentences in different ways; speaks clearly and correctly; builds up to an interesting climax; presents a clever ending

In oral reports:
states all facts accurately; keeps an outline in mind; uses new words and expressions; presents his material in a variety of ways; keeps the audience interested

In club meetings:
makes and seconds a motion; calls a meeting to order; reads the minutes; gives a committee report; brings up unfinished business or new business; participates in discussions; votes

\section*{Written expression}

Uses correct punctuation, capitalization, abbreviations, and spelling in all written work

Expresses his ideas accurately and effectively in writing; uses appropriate wordis, interesting sentences, correct grammar, and variety in expression
Writes legibly, neatly and accurately; arranges material attractively
Uses correct form for margins, indentations, headings Writes an anecdote, a joke, a limerick, an autobiography, a book report
Writes the minutes of a meeting, an article for a newspaper, a dialogue, a play, a report on a special topic Edits copy

Before language can take place, there must be an idea. And before there can be an idea, there must be an experience.

Skills to be developed in grades four, five, and six. The development of these dictionary skills should be an integral part of the elementary reading program.

Understanding that a printed word form may represent more than one meaning

Using sentence context to determine appropriate meanings

Recognizing alphabetical sequence and general alphabetical position

Identifying root words
Locating entries:
Observing alphabetical sequence
Observing general alphabetical position
Using guide words
Identifying root words in inflected and derived forms

Comprehending meanings:
Understanding that a printed form may represent more than one meaning

Generalizing word meanings
Using context clues to select appropriate definitions

Comprehending definitions in the light of a given text

Adapting definitions in light of context:
Holding the context in mind while considering all the definitions of an unknown word

> Generalizing an appropriate meaning, if necessary, from various definitions
> Relating the original idea in one's own words for clarification

Determining pronunciations:
Identifying the basic sound units in our language and associating them with their most common letter symbol

Blending consonant and vowel sounds
Identifying accent in spoken language
Blending syllables into word wholes
Developing understandings that aid in deriving pronunciations from the dictionary:

There are both consonant and vowel sounds in our language.

In dictionary pronunciations, each symbol stands for a given sound (There are no silent letters.)

In dictionary pronunciations, each consonant letter stands for its most common sound.

Using pronunciation keys and symbols
Diacritical marks
Accent mark
Schwa symbol

\section*{STEPS IN PROBLEM SOLVING*}

Everybody, in or out of school, is almost continuously confronted with the necessity of solving problems. Experience has taught us that there are certain logical steps leading to the solution of any problem. The following outline has been prepared in the hope that students may find it helpful in developing a problem or study procedure which may be useful all throughout life. With this outline and the suggestions, students should be able to find, plan, execute, and evaluate their own units of work.
I. I Find My Problem

Suggestions:
1. Help the class in choosing the group project.
2. Look through books and magazines for ideas which will help you to choose your problem.
3. Write as many questions as you can about the class project.
4. Choose two or three of these questions which seem most interesting and ask your teacher to help you select one as your problem.
II. I State My Problem

Suggestions:
1. Try to state the problem in your own words.
2. Now ask yourself these questions about the way you have state your problem:
a. Have I made it clear just what \(I\) want to find out?
b. Have I made it easy for others to understand my problem?
c. Will the answer to my question help to solve the class problem?
d. Will the answer to my question help people as a whole?
3. Try to improve the way in which you have worded your question?
*Received from Dr. Gerald Moulton in "Core Curriculum."
III. I Analyze My Problem

Suggestions:
1. Write as many questions as you can about the problem you have chosen.
2. Look in books and magazines for other questions about your problem which you have not thought of.
3. Now, choose two, or three or four of these questions which seem to you to be the most important.
4. The answer to these questions should help you to answer your main question or problem.
IV. I Study the History of My Problem

Suggestions:
1. Search through histories, pamphlets, and indexes of other books to see if you can discover the very good beginning of your problem. If you can't find it in your room library, try the school and public libraries.
2. Try to find out some of the other important things going on in the world at the time your problem began to be important.
3. Now, see if you can trace the story of your problem from its beginning to the present time showing how other people have tried to solve it. How did your problem in their days differ from the problem in our times?
4. Choose the people who seem to have done the most in helping to solve the problem and see if you can find some interesting things about their lives.
5. Try to find out how important events in history, such as wars, inventions, discoveries, or rulers, have affected your problem.

\section*{V. I Plan My Work}

Suggestions:
1. Take part in planning for the whole group if there is a group project.
2. Decide on the general plan of your own work.
3. Decide on the various steps or things to be done and then test them in the order in which you think they should be taken up. Go back to item 3 under "I Analyze My Problem" and consider the questions you decided upon. Now, under each question list the steps or things to be done in order to answer these questions and place them in the order in which you think they should be taken up.
4. Make a list of all the places where you think you might get information or help in solving your problem. Some of these might be the school, public and
home libraries, Reader's Guide, pamphlets, interviews, field trips, movies, readio programs, and many others.
5. Decide on the form of your completed report. Will it be a booklet, a map, a picture, a musical composition, some form of construction, a debate, a speech, a play, or any one of many different types of activities?
6. Decide upon a plan of taking and keeping notes.
7. Budget your time. Decide on the date for finishing your unit. It will help if you will also decide on dates for finishing various steps or parts of your unit.
8. Show your plans to your teacher and get his or her approval.
VI. I Work My Plan

Suggestions:
1. Begin with the first question decided upon in the analysis and follow the plans you have been making for answering each.
2. Keep careful notes on all your reading or other ways of finding facts.
3. The most careful students always list author, title, place of publication, publisher, date of publication, and page number. For magazine articles they list author, title, name of magazine, volume number, date of issue, and page number. Your teachers will tell you which of these they would like for you to list.
4. Try always to make the work your own. If you copy word for word, be sure to use quotation marks and tell whom you are quoting.
5. Consult your teacher frequently for advice.
6. Be sure to check yourself against your time budget.
7. Before putting your report in final form check your work with your teacher to see that you have not overlooked anything.
VII. I Summarize My Work and Make My Conclusions

Suggestions:
1. Make a list of the most important facts you have learned in working on this problem.
2. Now, use these facts to answer the main questions which you chose in the analysis.
3. State any other beliefs which you have gained from studying this problem.
VIII. I Evaluate My Work

Suggestions:
Now try to decide on how worthwhile the work has been for you by answering the following questions.
1. What have I added to my knowledge of the social studies?
2. In what ways have I improved my work habits?
3. Am I better able to solve a problem? If your answer is "yes", explain why this is so.
4. How have I improved my written and spoken English? Give as many examples as you can.
5. How have I improved my vocabulary? List as many new words as you have learned to use.
6. Have I grown in my ability to work without help? Give reasons for your answer.
7. Have I grown in my ability to work wisely with others? Show why your answer is true.
8. Have I changed my opinion about anything connected with public affairs or my place in life? Give examples of these changes.

\section*{APPENDIX D}

\section*{AIDS FOR THE ORGANIZATION OF GROUP AND INDIVIDUAL TASKS}
1. Group Plan of Work
2. Study Contract Form
3. Guide for Notetaking

\section*{GROUP PLAN OF WORK}
1. Our group problem is \(\qquad\)
\(\qquad\)
2. Questions we need to answer
3. Resources to us in answering questions
4. Who is responsible for each and every question?
5. Time schedule for sharing within our group:
\(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)
6. Plans for reporting to class:

Name \(\qquad\)
Date \(\qquad\)
Subject \(\qquad\)

STUDY CONTRACT (35:483)
1. Tell what you plan to do.
2. Explain briefly why you need to undertake this job and what you are trying to accomplish.
3. List the textbooks, reference books, equipment, and materials which you plan to use. If there are any items you need but do not have, mark them with astericks.
4. When do you expect to complete this project?
5. Who will work with you?

\section*{GUIDE FOR NOTETAKING}

Notetaking: Social estudiex
1. Author. Title of book or article. City and publisher. Date. Pages from which reference taken.

History of Mexico: \(\qquad\)
\(\qquad\)
\(\qquad\)
\(\qquad\)

Natural resources of Mexico: \(\qquad\)
\(\qquad\)
\(\qquad\)

Industries of Mexico: \(\qquad\)
\(\qquad\)
\(\qquad\)
Government of Mexico: \(\qquad\)
\(\qquad\)
2. Second source - Bibliographical information

Education in Mexico: \(\qquad\)
\(\qquad\)
Music and Art of Mexico: \(\qquad\)
\(\qquad\)
\(\qquad\)

\section*{APPENDIX E}

A TICKET FOR UNDESIRABLE BEHAVIOR

\section*{A TICKET FOR UNDESIRABLE BEHAVIOR*}

Name \(\qquad\)

Date \(\qquad\)

Offense \(\qquad\) Penalty \(\qquad\)

Signed
Teacher
student

Note: For most offenses the penalties will be:
1. Loss of free time with extra work to do
2. Benching at recesses
3. Benching at game times
4. Call parents
5. Report to the principal

For serious offenses, pupils will be sent directly to the principal.

A copy of this ticket will be placed in the child's folder.
*Received from Dr. Jettye Fern Grant in "Individualizing Instruction."

\section*{APPENDIX F \\ GUIDES FOR SELECTING MATERIALS}
1. A Formula for Analyzing the Difficulty Level of Textbooks
2. A Scale for Determining the Grade Level of a Book
3. Bases for Book Evaluation
4. Book Lists for Elementary School Children
5. Book Lists for Retarded Readers

\section*{A READABILITY FORMULA FOR}

ANALYZING THE DIFFICULTY LEVEL OF TEXTBOOKS (32:213-216)

This formula is too elaborate for use on all books, but could be applied to basic texts. The essential steps are as follows:
a. Select 25 to 30 samples from the book. Use "typical" parts, avoiding introductory paragraphs.
b. In each sample count every word up to 100. Count contractions, hyphenated words, numbers each as one word. Example: (1) 1950 (2) e.g. (3) counterrevolution (4) C.O.D. (5) couldn't.
c. Count the number of sentences in each sample, using as the last sentence the one closest to the 100 mark. (It may be \(92,94,102,108\), etc.) Add the number of sentences in all your samples. Then add the number of words in all samples. Then, divide the total number of words (in all samples) by the total number of sentences (in all samples).
d. Count the total number of syllables. Divide the total number of syllables by the number of samples. After you have the quotient, multiply it by 100.
e. To find the readability:
1. Multiply the average sentence length (in step c.) by 1.015.
2. Multiply the number of syllables per 100 words by .846.
3. Add the two products.
4. From this sum subtract 206.835 .

The score will lie between 0 (extremely difficult) and 100 (very easy). Flesch gives the following guide:
\begin{tabular}{lll}
\(90-100\) & 5th grade level & very easy \\
\(80-90\) & 6th grade level & easy \\
\(70-80\) & 7th grade level & fairly easy \\
\(60-70\) & 8th-9th " level & standard \\
\(50-60\) & loth-l2th level & fairly difficult \\
\(30-50\) & l3th-l6th level & difficult \\
\(0-30\) & College Graduate & very difficult
\end{tabular}

A SCALE FOR FINDING THE GRADE LEVEL OF A BOOK (38:20)
1. Choose five half-pages of the book which will be as representative as possible.
2. In each sentence, count 1 for each word of one or two syllables. Count 3 for each word of three or more syllables. Count numbers and proper names as 1. Count each clause of a compound sentence as a separate sentence.
3. Divide the count for each sentence by 2. The result is the grade level for the sentence.
4. Add the grade levels for all the sentences and divide by the number of sentences. The answer is the grade level for the half-page.
5. Average the grade levels for the five half-pages. The answer is roughly the grade level of the book.

BOOK EVALUATION*

The following points are to be considered in a Book Evaluation:

\section*{Author}

Is the author qualified to write in this particular field?
Is he open-minded and sincere?
What experiences has he had?
What writing has he done?
Book
Is the formation of the book satisfactory? (appearance, binding margins, paper, type)
Are the illustrations satisfactory? (From the standpoint of art and as to illustrating the text)
Does it contribute toward vocabulary development?
Does it give information? (Is the subject matter very accurate and up to date?)
Does it satisfy a desire for adventure and excitement?
Does it unfold new views?
Does the title help sell the book to the reader?
Has the book been included in any recognized reading lists?
Has the theme a universal appeal?
Has it vivid word pictures and colorful descriptions?
Is the book written in good English?
Will the book give pleasure to the majority of those who read it?

Mental and Moral Stimulation
Are the character, experiences described, and problems solved worthy examples?
Does the book leave a feeling of strength, of security? Is it challenging?

\footnotetext{
*Received from Mr. Paul Brincken in "Selection of Instructional Materials."
}

\section*{Broadmindedness}

Does the reading of the book strengthen in developing a systematic understanding of mankind?
Developing desirable appreciations?
Developing desirable attitudes?
Enriching the outlook on life?
Evaluation and judging life situations?
Freeing from personal fear and worry?
Does it appeal to high ideals in the reader?
Does it contain beauty in spirit, beauty in heroism, beauty in thought, and beauty in truth?
Does it contribute to the esthetic and social development?
Does it have a clear-cut line between right and wrong?
Is it stimulation to right thinking and action?
Do all qualities work together toward a final aim on character building?

\section*{Inspiration}

Does it build a consciousness of human relation?
Does it develop courage to meet life situations, make decisions?
Does it contribute to a sense of humor?
Does it enrich life, enlarge visions?
Does it help the reader see things in their proper relationships?
Does it uphold the finer things of life, wholesome living?

\section*{BOOK LISTS FOR ELEMENTARY SCHOOL CHILDREN*}

Children's Catalog, Ninth Edition, compiled by Marion L. McConnell and Dorothy H. West. New York: H. W. Wilson Co., 1956

A Basic Book Collection for Elementary Grades, The Seventh Edition, compiled by Miriam S. Mathes. Chicago: American Library Association, 1960.

Bibliography of Books for Children, 1958 Edition. Washington, D. C.: Association for Childhood Education International.

Best Books for Children, 1960 Edition, compiled by Mary C. Turner. New York: R. R. Bowker Co.

Eakin, Mary K. Good Books for Children: A Selection of Outstanding Children's Books published 1948-1957. Chicago: University of Chicago Press, 1959

Materials for the Literature Program, Grades 1-6. Curriculum Bulletin, 1956-57 Series, No. 7. Board of Education of the City of New York, 1958.

Eaton, Anne T. Treasure for the Taking, Revised Edition. New York: Viking Press, 1957.

Growing \(\frac{\text { Up }}{}\) with Books, compiled by the staff of Junior Libraries. New York: R. R. Bowker Co., 1960.

Growing Up with Science Books, compiled by the staff of Junior Libraries. New York: R. R. Bowker Co., 1960.

Adventuring with Books, 1956 Edition. Champaign, Illinois: National Council of Teachers of English.

Arbuthnot, May H., et. al. Children's Books Too Good To Miss, Second Revised Edition. Cleveland: press of western Reserve University, 1959.

\footnotetext{
*Received from Mr. Paul Brincken in "Selection of Instructional Materials."
}

ALA Booklist and Subscription Books Bulletin

\section*{Elementary English}

\section*{Horn Book}

Bulletin of the Children's Book Center
Junior Libraries
New York Herald Tribune
New York Times
Washington State List
Saturday Review
Publisher's Weekly
Book Review Digest

\section*{SERIES OF BOOKS USEFUL WITH RETARDED READERS*}

\section*{Dan Frontier Series}

Benefic Press
This series starts at pre-primer level and should be of interest to boys up to junior high school age. Firstrate for the almost total non-reader.

\section*{Cowboy}

Sam Series
Benefic Press
The eight books range from primer to third grade in difficulty. Western content appeals to many boys.

The Jerry Books
Benefic Press
The several books start at pre-primer level.
Button Family Adventures \begin{tabular}{l} 
Benefic Press \\
Bucky Button and his family in a series ranging in
\end{tabular}
difficulty from primer to third grade.

Beginner Books
Random House
THE CAT IN THE HAT and fifteen other easy, interesting books, several in rhyme. Reading level high first and second.

The First Reading Books
Garrard
Written with the easier half of the Dolch Basic Sight Words and the 95 common nouns, they are first grade in difficulty. Content deals with pets, birds, and wild animals.

The Deep-Sea Adventure Series Harr Wagner
The five books in this series start with THE SEA HUNT which contains only 159 different words. The exciting content, beautiful illustrations, and mature appearance of these books make them very valuable in a remedial program.

Walt \(\frac{\text { Disney }}{\text { Mickey }} \frac{\text { Story }}{\text { Mous }} \frac{\text { Books }}{\text { Donald }}\) Duck, et. al. in a series rang-
ing from high first grade to fifth grade in difficulty.
* Received from Dr. Gerald Moulton in "Core Curriculum."
Basic Vocabulary Series Garrard
Over a dozen books at about second grade level, with content about folk tales, animals, and Indians.
American Adventure Series WheelerMost are biographies of Indians, trappers, scouts,pilots, etc., that interest boys through junior highschool. Difficulty well graded and ranges from secondto fifth grade.
Pleasure Reading Stories Garrard
Famous stories and legends, including Robin Hood, Robinson Crusoe, Aesop, fairy tales and folk tales, all written at third grade level.
Discovery BooksGarrardAdventurous, true biographical books about DanielBoone, Lincoln, etc., written at about third grade dif-ficulty level.
Junior Science Books Garrard
These authentic and beautifully illustrated little books are third to fourth grade in difficulty.
Interesting Reading Series Penns Valley
THE MYSTERY OF BROKEN WHEEL RANCH, at third grade level, has mature appearance and exciting plot; four others at third and fourth grade level.
Junior EveryreadersWebsterRobin Hood, King Arthur, etc., in simple versionswritten at about a third grade level.
The First Books Watts
On many topics, such as baseball, these are the eas- iest books available. Factual, straightforward treat- ments of topics interesting to older children. The difficulty varies to about fourth grade level.
The Everyreader Series Webster
CASES OF SHERLOCK HOLMES, THE GOLD BUG, COUNT OF MONTE CRISTO, and other classic adventure and mystery books simplified to about fourth grade level.
Simplified Classics Scott, Foresman
Titles include TREASURE ISLAND, LORNA DOONE, etc.. in versions of fourth to fifth grade difficulty.
Modern Adventure Stories Row, Peterson
These mature-looking paper-covered mysteries have very intriguing titles (e.g., FIND FORMULA X-48!) and exciting plots. About fifth grade in difficulty; and should appeal through senior high school.

Childhood of Famous Americans Series Bobbs, Merrill
Over one hundred biographies stressing the childhood of Americans from Washington to Babe Ruth. The last chapter deals with adult life. Difficulty generally at the fourth grade level, acceptable through seventh grade.

American Heritage Series Aladdin
Historical novels about significant events in American history. Fifth to sixth grade in difficulty, acceptable through junior high school.

Allabout Books
Random House
Well-written factual books on many topics of interest to children; the one on dinosaurs has been especially popular. Difficulty around fifth grade; interest through secondary school.

Landmark Books
Random House
Cover events and important people in U. S. history; authentic, many written by outstanding authors. Over eighty titles. Difficulty ranges from fifth to seventh grade.

World Landmark Books
Random House
Events and important people of other lands; similar to Landmark Books. Difficulty, fifth to sixth grade.

Teen-Age Tales
Heath
Books \(A, B, 1-6\). A series of short story collections of real appeal to adolescents, written at fifth to sixth grade difficulty.

New Method Supplementary Readers Longmans
Classic tales and famous novels rewritten in very simple vocabulary, ranging from 450 words to 2,500 words.

Longman's Simplified English Series
Longmans
Famous novels simplified to a basic vocabulary of about 2,000 words, intended primarily for use in learning English as a second language.

\section*{APPENDIX G}

\section*{QUESTIONNAIRE}

\section*{QUESTIONNAIRE}
1. To what extent do you use grouping within your classroom to provide for the individual differences in rate of learning?

Never Seldom Usually Always

2. To what extent do you use grouping within your classroom to meet the particular instructional and/or personal needs of children?

3. To what extent do you use grouping within your classroom to provide for varying interests of children?

4. a. What specific problems do you have or would you anticipate having in forming and using groups within your own classroom to provide for individual differences in the rates of learning?
b. To what do you attribute these problems?
5. a. What specific problems do you have or would you anticipate having in forming and using groups within your classroom to meet the particular instructional and/or personal needs of children?
b. To what do you attribute these problems?
6. a. What specific problems do you have or would you anticipate having in forming and using groups within your classroom to provide for the varying interests of the children?
b. To what do you attribute these problems?

\section*{APPENDIX H}

EXAMPLES OF JOB CARDS

\section*{EXAMPLES OF JOB CARDS*}

COMPREHENSION: COMPARING AND CONTRASTING JOB CARD NO.
1. Read a story about some famous person.
2. In what way was this person different from most famous people whom you have read about?
3. Does this famous person remind you of any other famous person? Whom?
4. In what way(s) were they alike?
5. In what way(s) were they different?

COMPREHENSION: MAKING JUDGMENTS AND DRAWING CONCLUSIONS
JOB CARD NO. \(\qquad\)
1. Which character in the story did you like best? Why?
2. Was the main character true-to-life or make-believe? Write a paragraph giving good reasons for your answer.

COMPREHENSION: INTERPRETATION THROUGH ORAL READING
JOB CARD NO. \(\qquad\)
1. Reread a page in the story. Choose words you think should have special emphasis.
2. Practice reading this page orally, emphasizing the words you have chosen.
3. Read the page aloud to the class.

COMPREHENSION: INTERPRETING EMOTIONAI REACTIONS, MOTIVES, AND BEHAVIOR OF STORY CHARACTERS

JOB CARD NO. \(\qquad\)
1. Read a fictional story.
2. Describe one of the important events.
3. Tell what the main character did during this time.
4. Tell why you think he behaved as he did.
5. Would you have behaved in the same manner under the same circumstances?

READING: Any kind Work card \#l-b
1. List the one-syllable words you know in this story which have the vowel sound heard in


READING: Any kind Work card \#2-b
1. List the one-syllable words you know in this story which have the vowel sound heard in


cup


READING: Any kind Work card \#3-b
1. List the one-syllable words you know in this story which have the vowel sound heard in

spoon

kite

mule

READING: Any kind Work card \#4-b
1. List the one-syllable words you know in this story which have the vowel sound heard in

leaf
READING: Any kind Work card \#5-b
1. List the one-syllable words you know in this story which have the vowel sound heard in

pear
foot


READING: Any kind
Work card \#7-b
1. List the words in this story which begin with two-letter or three letter consonant blends. Underline the initial blend in each word.

READING: Any kind Work card \#8-b
1. List the words in this story which have final consonant blends. Underline the final consonant blend in each word.

READING: Any kind Work card \#9-b
1. List the words in this story which have vowel digraphs. Underline the vowel digraphs.

> READING: Any kind Work card \#lo-b
1. Make a list of two-syllable words from this story. 2. Draw a vertical line to show where the syllables break in each word.

READING: Any kind Work card \#ll-b
1. Make a list of words from this story which have a schwa sound.
2. Check the pronunciation of each word in the dictionary to be sure about the schwa sound.
3. Underline the letter or letters in each word which makes the schwa sound.

READING: Any kind Work card \#l2-b
1. Find as many different words as you can in this story which begin with the letter c. Arrange them in alphabetical order.

READING: Informational; Book or Story Work card \#14-a
1. What is the title of this book or story?
2. Who wrote it?
3. What did you learn from reading this book or story?

READING: Informational; Book or story Work card \#15-a
1. Make an illustration of something that you learned from this reading. Use any material you wish: clay, chalk, fingerpaint, cloth, crayons, paper, cardboard, or string. Make a label to fit your illustration.

READING: Informational; Book or Story Work card \#l6-a
1. Make a list of words in this book or story which you find you did not understand. Look each one up in the dictionary and find the definition which fits the meaning in the story.

READING: Informational: Book or Story Work card \#l7-a
1. Make a sentence outline of the material read. Include all the main ideas.

READING: Informational; Book or Story Work card \#18-a
1. Choose the main subject or one of the main subjects of this story or book, then make a list of words and phrases which tell about it. Be sure that every word or phrase tells something about the subject.

READING: Informational; Book or Story Work card \#l9-a
1. Look in the room library or in the school library for other books or stories on this same subject. Write down the title of each book and the author. Then give your page reference.

\section*{APPENDIX I}

\section*{DIAGNOSTIC TESTS}

\title{
BERKELEY UNIFIED SCHOOL DISTRICT Office of Director of Elementary Education \\ AN INFORMAL TEST OF WORD ATTACK SKILLS (12)
}

Name of Pupil \(\qquad\) Grade \(\qquad\) School \(\qquad\)
Teacher \(\qquad\) Date \(\qquad\)

Teachers frequently express a need for a diagnostic tool which indicates areas of weakness in word attack. In the following test some key word attack skills are tested, and suggestions for administration are given. Teachers are encouraged to augment portions or to eliminate portions not applicable.

Directions: Use two forms - one for the teacher and one for the pupil.

\section*{SUMMARY OF SKILLS}

\section*{I. Ability to sound letters}
II. Auditory perception of letter sounds
```
III. Recognition of small
    letters
```
IV. Auditory perception of words sounded
V. Ability to blend letter
sounds

\section*{VI. Reversals}

\section*{VII. Endings}
VIII. Change vowel sounds
IX. Vowel digraphs \&
diphthongs
X. Syllabication

REMARKS \(\qquad\)
\(\qquad\)
\(\qquad\)

\section*{References:}

Kottmeyer, William, Teacher's Guide for Remedial Reading. St. Louis: Webster Publishing Co., 1959.

Gates, Arthur I., The Improvement of Reading: Program of Diagnosis and Remedial Methods, 3rd Ed. New York: The Macmillan Co., 1947, 657 pages.

This test was prepared by the Staff of Elementary Remedial Reading Teachers, Berkeley Unified School District. 10/63.
1. ABILITY TO SOUND LETTERS: Teacher (pointing to r) "What sound do you give this letter when you see it at the front of a word?" (If pupil cannot sound the letter, ask him to say a word that starts with the letter). Try to secure long and short vowel sounds.

Teacher (pointing to wh) - "What sound do you give these letters when you see them at the front of a word?" (If pupil cannot sound the letters, ask him to say a word that starts with the letters).
wh sh th ch cl dr br tr pl sp fl sm
NOTE: If pupil has difficulty with ability to sound the consonants, blends, and digraphs above, then administer tests 2 and 3.
2. AUDITORY PERCEPTION OF LETTER SOUNDS: Teacher - "I am going to give you a sound, and I want to have you tell me what letter stands for or makes that sound. I'll do one for you to show you what I mean. Watch my lips as I make the sound. The first sound is "a" (as in ate). What letter makes that sound?"
NOTE: THE TEACHER SOUNDS THE LETTER BUT DOES NOT PRONOUNCE THE WORD.
\[
\begin{aligned}
& 1 \text { - (live) } y \text { - yet } v \text { - (van) g - (get) n - (no) } \\
& \text { b - (be) t-(to) h - (he) w - (we) o - (0dd) } \\
& \text { a - (apple) e - (Ed) f - (file) p - (pay) ch - (chew) } \\
& \text { d - (do) u - (up) sh - (chew) }
\end{aligned}
\]
3. RECOGNITION OF SMALL AND CAPITAL LETTERS: Teacher "Tell me the names of these letters."
\(\begin{array}{llllllllllllllllllll}\text { I } & \mathrm{B} & \mathrm{A} & \mathrm{S} & \mathrm{C} & \mathrm{D} & \mathrm{F} & \mathrm{E} & \mathrm{P} & \mathrm{T} & \mathrm{M} & \mathrm{L} & \mathrm{R} & \mathrm{Z} & \mathrm{J} & \mathrm{U} & \mathrm{H} & \mathrm{G} & \mathrm{W}\end{array}\)
Q \(\quad \mathrm{K} \quad \mathrm{V} \quad \mathrm{Y}\) N O
 \(g \mathrm{w} \quad \mathrm{d} \quad \mathrm{f} \quad \mathrm{x}\) e
4. AUDITORY PERCEPTION OF WORDS SOUNDED: Teacher - "I am going to sound some words for you. Tell me the word you hear. Watch my lips as I say them."
\[
\begin{aligned}
& m-e \quad b-i-g a-m \quad t-a-p \quad m-e-n \quad s-o \\
& p-e-t \quad \operatorname{tr}-a-p
\end{aligned}
\]
5. ABILITY TO BLEND LETTER SOUNDS: Teacher - "These are not real words. Try to sound them out."
fis gud hin sut jav ket tam nibs vin
wab nel puad rog beb col dob
6. ABILITY TO DISCRIMINATE WORDS COMMONLY REVERSED: Teacher "Read these words cross the page. Read them as fast as you can."
pal even no saw raw ten tar won pot
rats keep nap tops read meat lap was
7. ABILITY TO RECOGNIZE ENDINGS: Teacher - "Read these words" boys painted eating rainy likely reader ripest enjoyment expansion contribution
departmental
8. ABILITY TO CHANGE VOWEL SOUNDS: Teacher - (pointing to "hat") "Read this word and then read the word below it."
hat bit rob us cut
hate bite robe use cute
9. ABILITY TO RECOGNIZE VOWEL DIGRAPHS AND DIPHTONGS: Teacher - "Read the words across the page."
wait bead coast tie feet haul toad braid
steal coil town jaw spoil sound straw joy
cried fraud boy clown float sheet
10. ABILITY TO SYLLABICATE:
(NOTE: The purpose of this test is to determine ability to apply visual clues for dividing words into syllables according to 4 rules (VC/CV, V/CV../Cle, preserve blends) and to pronounce these nonsense words correctly by applying rules to open and closed syllables.)

Directions: Give Teacher's copy to pupil to mark.

Teacher: "These are not real words but they can be divided into syllables. Draw a line between the syltables."

\section*{imrel chitter pratuct bingle restrect} citur sceldar hedper stratle
Directions: After the pupil has drawn lines between the syllables the teacher should say, "You have divided the words into syllables. Now, pronounce the words." The pupil should read from the teacher's copy as the teacher records the pupil's response phonetically on a separate piece of paper. Then this may be transferred to the teacher's copy when testing has been completed.

əโ7 / ex zs xn / ti xəd / pəч dep / ios ( \(\tau\) )



\section*{APPENDIX J}
1. High Expectations Procedures
2. Examples of High Expectations Assignments
1. All High Expectations work should be kept in a special folder which the child will make at school.

On a form pasted to the back of this folder, the child should record the date and time spent on High Expectation work. This should be checked and initialed by the person who supervised the work.

A special envelope attached inside the folder should be used to hold messages regarding the work which may be sent by the teacher to the parent or guardian, or vice versa.
2. The child should keep all High Expectations Assignments in his folder. usually these will be duplicated sheets.
3. The child should do as many of the assignments as he has time to do and can do. This work should not be allowed to interfere with the performance of home chores, music practice or a reasonable amount of sleep, play, relaxation, and free time.
4. The assignments will relate to many topics in different subjects. The child and his supervisor are free to select those which he will work on. All of them may be done, but none of them have to be done.
5. The purpose of the program is TO ENCOURAGE EACH CHILD TO DO MORE WORK AT A HIGHER LEVEL WITH GREATER SKILL AND ACCURACY. Therefore each piece of work turned in should be representative of the very best that the child can do. Material on pages should be well-arranged, neat, and accurate. Spelling and punctuation should be correct. Arithmetic should be checked before it is turned in.
6. As time permits, the teacher will go over the work turned in, make corrections and/or suggestions, and return it to the child. If errors have been made, the work should be corrected before the child goes on to another assignment.
7. To help keep track of the assignments, each page will be dated and designated as \#1, \#2, \#3, etc. This has not been done heretofore, and so we will call the first High Expectations Assignment (given in chart form) as \#l. The page dated 10-24-62 will be \#2. The page dated 10-25-62 will be \#3. After this I will keep them straight.
8. There will be three or four pages of assignments per week, but they do not have to be done in order.

\section*{HIGH EXPECTATIONS ASSIGNMENTS -- Example (35:497-98)}

English To show comparisons, we sometimes use words like these:
pretty...This is a pretty doll. (Use pretty when there is only one thing.)
prettier...This doll is prettier than that one. (Use prettier when comparing two things.)
prettiest...This is the prettiest doll in the store. (Use prettiest when there are more than two things.)

Other words which may be used in this way are:
\begin{tabular}{llllll} 
slow & fine & happy & great & small & big \\
slower & finer & happier & greater & smaller & bigger \\
slowest & finest & happiest & greatest & smallest & biggest
\end{tabular}

But some words would sound pretty silly if used in this way. Notice these:
expensive helpful agreeable
expensiver ) NO! helpfuller ) NO!
expensivest) NO!
agreeabler ) NO! agreeablest) NO!

The correct comparative form of these words is as follows: expensive . . . This watch is expensive. (Use expensive with one thing.)
more expensive. This watch is more expensive than that one. (Use more when comparing two things.) most expensive. This is the most expensive watch in the store. (Use most expensive when comparing more than two things.)
helpful . . . . Mrs. Brown's boy was helpful today.
more helpful. . Jack is more helpful than Jill in the cafeteria.
most helpful. . Virginia is the most helpful child in the family.
agreeable . . . Mr. Wilson is agreeable every morning. more agreeable. Tim is more agreeable than John at game time. most agreeable. Jack is the most agreeable boy on the team.
1. Make a list of words which follow the same comparative pattern as slow. Show the three forms of each word. Use each word in a sentence. Underline the comparative form.
2. Make a list of words which follow the same comparative pattern as expensive. Show the three forms of each word. Use each of these comparative forms in a sentence. Underline the comparative forms.
1. Review your arithmetic combinations. Make sure that you are able to give the answer to any one instantly and correctly. If there are tests which you have not mastered, try to do so as soon as possible.
2. Use several different reference books to obtain information for a report on one subject. Then make a bibliography listing the resource books used in preparing your paper.

First arrange the books in alphabetical order according to the author's last name.

If the author has written more than one of the books, list the books by that author alphabetically according to title.

Use this special form for each of your entries in the bibliography:

Henry, Marguerite. All About Horses. New York: (Author)
(Title)
(City)
Random House, 1962.
(publishing Co.) (date)
If you used only certain pages in the book, you show that after the date of the publication. But if you used the whole book, do not show the page.
3. Make a selection of something you wish to read that is not easy for you. Work on it until you can read it perfectly. Make sure that you understand and can pronounce correctly every word. Be sure that your voice follows all the punctuation marks properly. Practice with a friend or an adult.

When you are sure that you can do no better, schedule time for a class presentation.
4. Prepare an outline to be checked by your teacher.
5. Make a list of the important things you want to accomplish during the rest of this week and next week. WHERE ARE YOU GOING IN YOUR SCHOOL WORK?

Reading:

Arithmetic:

Science:

Language:

Other subjects:~~~

