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APPLICATIONS OF RESEARCH TO THE PROBLEM OF INSTRUCTIONAL FLEXIBILITY.

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SELECTED RESEARCH ON THE PROBLEM OF INSTRUCTIONAL FLEXIBILITY IS SURVEYED AND DISCUSSED. BROAD TOPICS OF DISCUSSION ARE DEPARTMENTALIZATION, HOMOGENEOUS SECTIONING, INTERCLASS ABILITY SECTIONING, THE EXTENT OF VARIABILITY IN READING DEVELOPMENT, AND PRACTICES THAT MAY INCREASE FLEXIBILITY. AMONG THOSE PRACTICES TO INCREASE FLEXIBILITY ARE TEAM TEACHING, NONGRADED, MULTIAGE SECTIONING, AND THE CONTINUOUS PROGRESS PLAN. CRITERIA FOR EVALUATING ORGANIZATIONAL PATTERNS ARE LISTED. IT IS POINTED OUT THAT SCHOOL ORGANIZATION PLANS FREE TEACHERS TO PROVIDE ADEQUATELY FOR DIFFERENCES. A BIBLIOGRAPHY IS INCLUDED. THIS PAPER WAS PRESENTED AT THE ANNUAL CONFERENCE AND COURSE ON READING (22D, UNIVERSITY OF PITTSBURGH, JULY 5-15, 1966), AND PUBLISHED IN A REPORT OF THAT MEETING, "PROGRESS AND PROMISE IN READING INSTRUCTION," BY THE SCHOOL OF EDUCATION, UNIVERSITY OF PITTSBURGH, PITTSBURGH, PENNSYLVANIA 15213.
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Progress and Promise in Reading Instruction

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*Applications of Research
to the Problem of
Instructional Flexibility*

by

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An unknown humorist spoke for most of us when he said, "I constantly have trouble reconciling my net income with my gross habits." But it is not funny when we as teachers make the analogy: "We constantly have trouble reconciling each child's educational needs with the mass needs of the gross numbers of children seated before us every day." There is convincing evidence that program flexibility based on individual achievement produces better results than lockstep teaching¹, but the means of achieving adequate elasticity in curricular sequences is a puzzle to most educators.

Instructional flexibility has *not* always been a problem in this country. In the days of early colonization and expansion, when a person could teach after eight years or less of elementary schooling, classes were fairly small and lessons were assigned individually according to the progress of each child; the program was *entirely* flexible. But after the early settlers became independent and adequately safe and secure on their new lands they found themselves quite overwhelmed by the responsibility they now had for preparing succeeding generations not only to read the books of worship, but also to vote intelligently for political leaders capable of directing the affairs of an independent representative democracy. So in state after state they established compulsory education.

This soon led to a schoolroom shortage, followed by building construction projects that led to a teacher shortage. This, in turn, led to large classes and a daily time shortage that made it almost impossible for the teacher to hear each pupil recite regularly. All of these shortages were then followed by the beginning of our "revered" American custom of searching for a quick, simple, *cheap* panacea for educational problems!

First they tried the monitor system wherein the teacher taught a few bright pupils who acted as student instructors to repeat the lessons to large groups of their peers. The monitor system was not very effective, so school leaders went to Europe seeking other ideas. They decided that the best solution was to copy the highly organized systems of militant Prussia, where all the children of one age sat together in one classroom, were given identical assignments, and quickly recited different parts of the same lesson at the appropriate time. Thus even a staff of narrowly prepared teachers could handle a large number of pupils in different rooms of one schoolhouse and all could be assured of an opportunity to study and recite every day. As an outgrowth of the Prussian influence the first fully graded school in the United States was opened in Quincy, Massachusetts, in 1848. The graded school idea spread so rapidly that within twenty years it typified the American urban system. Because it does not make allowances for the fact that children's talents differ both qualitatively and quantitatively, sensitive teachers and pupils in graded schools have felt plagued ever since by inflexible assignments, daily extremes of boredom and frustration, nightly extremes of easy or impossible preparation, and periodic extremes of smug satisfaction or suicidal despair over report card marks. One prominent educator has said, in fact, that American schools probably have done more harm than good to about one-third of the pupils who have been forced to attend².

One of the natural consequences of the wide adoption of the in-

flexible graded organization was universal alarm concerning the large number of children who had to repeat grades. The proportion of retarded children in a school often rose to more than thirty per cent. As early as 1869 William T. Harris attempted to overcome this problem by initiating flexible promotion on a quarterly basis in St. Louis schools³. In 1886 a plan was adopted in Elizabeth, New Jersey, to provide flexible promotion, enrichment, and remedial work in a framework of classes sectioned by ability⁴. Among other systems developed to provide differentiated curriculum tracks or differentiated progress rates were the Cambridge, Double Tillage, Batavia, Portland, and Denver Plans⁵.

While the most common organization continued to be that of the self-contained classroom with heterogeneously assigned pupils, two frequent variations became the departmentalized arrangement and a system of homogeneously sectioned classes in larger schools.

READING INSTRUCTION IN THE DEPARTMENTALIZED SCHOOL

Departmentalization probably was introduced into the secondary schools as soon as they became large enough to enable teachers to concentrate on their own areas of specialization. Complete departmentalization and semi-departmentalized platoon patterns were introduced at the elementary level between 1890 and 1910 as schools attempted to upgrade the elementary curriculum⁶. While the self-contained classroom plan remained predominant nationally, by 1925 sixty-seven per cent of 410 cities in the 2,500-25,000 class used some degree of departmentalization⁷.

It seemed obvious that teachers could obtain best results when teaching only in the areas of their greatest interest and knowledge, but research studies undertaken before the middle of the century did not favor elementary departmentalization when compared with self-contained classrooms. One study reported by Otto in 1923 concluded that children in grades five through eight made better general progress in single-teacher classes than in departmentalized classes⁸, while another investigation reported by the same writer in 1930 resulted in no significant differences⁹. In a study of particular importance, Margaret Rouse¹⁰ in 1946 analyzed instructional practices in twenty departmentalized schools and twenty non-departmentalized schools, finding fourteen features that were significantly different between the two. She evaluated these practices on the basis of recommendations by educational authorities and determined that six of the seven procedures typical of the departmentalized school were undesirable. Among these poor practices were those of organizing classes on a single subject basis and the use of formal oral reading as a major technique of instruction. Grouping for reading was found significantly more

frequently in the self-contained rooms¹¹. Findings such as these plus criticisms by leading psychologists resulted in decreasing departmentalization until a survey of one hundred cities by the United States Office of Education in 1948 showed that none still considered departmentalization as their basic plan of elementary school organization¹².

The research has continued with a number of studies such as the one by Jackson, who found no significant differences in achievement in various areas of study by children in single-teacher and multiple-teacher plans. He observed, however, that the individual teacher's sympathetic attitude toward pupils is probably more important than the type of school organization¹³. Spivak obtained similar results in a matched group study of seventh and eighth graders; he felt children from self-contained classrooms were better adjusted in the ninth grade, but the first period ninth grade report card marks of the departmentalized groups were somewhat higher¹⁴. In reporting an experiment that did not incorporate data on reading, Gibb and Matala indicated that intermediate grade pupils seemed to learn more from a special teacher in science, but not in mathematics. Probably their most useful conclusions were: "The background of the teacher not only in content but also in elementary school education may be a more significant factor in developing concepts of mathematics and science than classroom organization alone," and "Good teachers are effective regardless of organization"¹⁵.

During the past few years there has been somewhat of a trend back to departmentalization despite the research evidence available. Administrators have been groping for methods of improving reading, science, and mathematics instruction in competition with Russian schools, and they have been faced with an acute teacher shortage which necessitated the placement of some fairly inadequate teachers in some classrooms. Under these circumstances both parents and administrators have reasoned that it is better for a child to have several teachers during the day, thereby improving his chances to work with a good teacher at least part of the time instead of risking placement with one weak teacher all the time. This trend is not encouraged by results of a recent major study undertaken in the schools of Montgomery County, Maryland. Although many of the children in departmentalized classes there felt they had had more science instruction, educational films, and field trips during the experiment, a comparison of fourth, fifth, and sixth grade achievement test scores did not show better results than in self-contained rooms. In fact, *reading and mathematics achievement was higher in self-contained classes for the majority of pupils, and those in the lower I.Q. range (75-89) did better*

work in all subjects in self-contained rooms. Teachers found that they knew the children better and could spot their special needs better in the self-contained classrooms, also¹⁶.

HOMOGENEOUS SECTIONING

Although there were early attempts to obtain from the lockstep of the graded school, the practice of assigning children to classes according to ability did not become widespread until after 1919 when schools began making much use of intelligence tests that had been developed during the war. Questions about the XYZ track plan instituted in Detroit in 1919 stimulated a number of research activities during the 1920's and 1930's at both the elementary and secondary levels¹⁷. Many of these studies were not conclusive because they were not adequately designed and the researchers did not apply statistical tests of significance to data that were collected. Results were not encouraging, however, and many schools lost interest in homogeneous sectioning during the 1940's and early 1950's. During the past ten years public pressures have resulted in a renewed hope for benefits from ability grouping and have stimulated the restudy of old research and the collection of new data. Only a few of the better designed studies that relate in some way to reading instruction have been selected for consideration here.

Hartill in 1936 described a brief, but well designed study in which 1374 fifth and sixth grade children were taught by the same teachers during successive half-years under heterogeneous and homogeneous organization plans. Overall gains of children while in the heterogeneous classes were superior¹⁸. In somewhat the same vein, Edmiston and Benfer found that when curriculum patterns were not specifically differentiated, fifth and sixth graders in groups having an I.Q. range of 41 points did not make less reading progress than pupils in groups where the I.Q. range was 29 points¹⁹.

In one of the most ambitious investigations to be described, Goldberg and Passow observed fifth and sixth grade progress of over two thousand pupils classified in five ability levels and actually sectioned in fifteen different grouping patterns. Achievement increments were greatest in classes having a broad range of ability in all subjects except reading. Including gifted groups in classes did not favorably affect reading progress of children of most other ability levels, but the progress of fairly bright pupils was favorably influenced by the presence of relatively slow groups. (The "slow" pupils in this study were mostly of "low average" ability.) These slower pupils' expectations of academic success were usually in-

creased when they were in somewhat homogenous classes with others of their own general capability, while bright pupils tended to anticipate greatest success when they were placed in heterogeneous classes. The authors observed that most teachers did no more planning to adjust the curriculum to fit pupil differences in one type of organization than another. In general pupil achievement was less affected by the pattern of organization than by being assigned to a particular teacher; some teachers were consistently more successful than others. Most teachers were more successful in adjusting to several ability levels in one or two subjects than they were in handling all subjects for one ability level²⁰.

In a very recent investigation Borg collected data on several hundred students at different elementary and secondary grade levels in a city system following a homogeneous sectioning plan. The two elementary samples that were included were in the fourth grade (Sample IV) and the sixth grade (Sample VI) when the study was begun. Data on reading achievement is available only for these two samples because the reading sections of the Sequential Tests of Educational Progress were administered only at the elementary levels. In the first year, the only year of reading testing for Sample VI, the fast and average pupils in the ability grouped sixth grade classes made reading gains that were significantly greater than those in the heterogeneous classes, while there was no significant difference between progress of slow groups in different systems. First year results for the fourth grade classes (Sample IV) followed exactly the same pattern. During the second year of the study, when they were in the fifth grade, opposite results were obtained for Sample IV; reading progress was significantly greater in the heterogeneous classes. In the third year, when Sample IV pupils were in the sixth grade, there was no significant difference between reading achievement under the two plans. Since the superior reading results for ability grouping were all achieved during the first year when ability grouping was newly introduced in the district, it would appear that its advantage was obtained through novelty effects. Because in the three years of the study the reading scores for Sample IV revealed two comparisons favorable to ability sectioning, three favorable to heterogeneous sectioning, and four too small to be significant, it cannot be concluded that either pattern of organization will regularly produce better general reading achievement in the elementary school. However, it should be noted that scores on the *California Study Methods Survey* given to Sample IV pupils only at the end of the seventh grade, revealed mixed ability classes to be significantly ahead of homogeneously sectioned classes at all three levels of ability²¹.

In respect to social-emotional growth factors, Borg found that superior students received the largest number of sociogram votes in heterogeneous classes, while average and slower pupils were most favored when placed in ability grouped classes. The self-concept scores of pupils as shown by the *Index of Adjustment and Values* consistently indicated more favorable self-concepts for the heterogeneously grouped classes²². Because of the latter finding and the results on the study skills test, one could hardly argue for ability grouping for elementary reading teaching, especially since general reading achievement does not seem to be significantly improved thereby.

Although there have been a number of studies on homogeneous sectioning at the secondary level, few have given special attention to reading achievement. The best one to include several areas of work probably is that reported by Drews in 1962. She worked with eight ninth grade teachers who taught both the ability-grouped and the heterogeneously-grouped classes during different periods of the day. The teachers held regular meetings to make plans for differentiating their teaching to suit individual pupil progress regardless of whether children were in heterogeneous or homogeneous classes. A t-test analysis of beginning and final examination scores revealed that growth in reading comprehension had not been significantly influenced by the different patterns of school organization²³.

The reason why some research has shown homogeneous sectioning to be successful for one or two subjects, but not for others, is best explained by studies such as those done by Hui²⁴ and by Burr²⁵. In the latter case it was found that when classes were grouped as homogeneously as possible in three levels for one subject, they were not all homogeneous when tested in other subjects. In view of such evidence many school systems discontinued homogeneous grouping, while at the same time the City of Joplin was calling attention to a system of interclass grouping, wherein classes were resectioned according to ability level when they passed to different rooms for each different subject. This vertical ability grouping plan has been receiving attention in recent years, especially as an organization pattern to provide for individual differences in reading. The research on this topic is somewhat inconclusive as yet.

INTERCLASS ABILITY SECTIONING

Some experiments have favored interclass grouping. One involved four experimental groups of fifth and sixth graders taught under the Joplin Plan while four control classes were tught in mixed groups; the

experimental groups achieved slightly more than the controls²⁶. In another situation, intermediate class progress during one year of interclass grouping was compared with progress of the same pupils during the previous year before the Joplin procedure was introduced. Results significantly favored interclass grouping²⁷. One might question whether these favorable results were caused by novelty effects during the first year of these experiments, especially in view of findings from a longer investigation. Morehouse reported a situation where one school used the Joplin procedure with 169 intermediate grade pupils and compared achievement for children of three ability levels with that of similar children in a control school. At the end of the first semester, results favored the Joplin Plan for average and fast learners, but not for slower groups. However, differences in progress at the end of the second, third, and fifth semesters were not significant²⁸.

Ramsey found that the Joplin Plan in grades four, five, and six produced expected gains on standard tests for the more able pupils but did not always do so for slower children²⁹. Other investigators concluded that the Joplin Plan did *not* produce better achievement for intermediate classes during one year of work than did a modified form of homogeneous sectioning³⁰. Koontz found that fourth grade children grouped in five ability levels for one year did not achieve higher than children in heterogeneous classes although they had been initially equal in achievement³¹.

A couple of experiments have shown even less favorable results with the Joplin Plan. A well designed study by David Russell revealed that 278 intermediate grade pupils made significantly greater progress in reading achievement in heterogeneous classes than did 248 pupils who were ability grouped in reading but not in their other school subjects³². Recently, Powell did an experiment to compare achievement differences by sex and by high and low ability classifications in classes where enrollments, time spent on instruction, materials, and library participation opportunities were equated. The two teaching staffs were also equated using the *Elementary Grades: Teaching Tasks in Reading*. Standard achievement tests showed only one major difference in achievements: superior pupils in the self-contained classes achieved at a level higher than those in interclass ability groups to a degree that was tentatively significant³³.

The three organizational patterns described thus far have been designed in attempts to enhance learning by increasing the flexibility of utilization of teacher factors, time factors, or curriculum content factors. They seem logical and are generally respected. Why have they failed to produce better learning than the single-teacher, self-contained organiza-

tion? The answer: *Human variability is much too complex to be adequately recognized by any simple one-dimensional modification in school organization.* A homogeneous sectioning plan may be slightly better than self-contained classes that provide no differentiation whatever in pupil expectations, but it is an extremely feeble effort to solve a very complicated problem.

THE EXTENT OF VARIABILITY IN READING DEVELOPMENT

For those who have not had ready access to older studies on trait variability such as the one by Hull²⁴, a more recent one by Irving Balow is very informative. Balow sectioned ninety-four fifth grade pupils into four "homogeneous classes" on the basis of the averages of their grade equivalent scores on a series of reading tests. While the score averages of individual pupils ranged from 2.0 to 9.0, the four class averages were 3.3, 4.0, 5.2, and 6.7. This would make it appear that homogeneous sectioning had greatly reduced the amount of differentiated teaching required for each teacher to be successful. However, such reasoning proves to be faulty because a child's average score on a number of tests of reading skills tells very little about his level of learning on any one specific skill. When Balow analyzed the scores that pupils in the four classes earned on eight different tests of reading skills, he found that the variation of skill within each class was often almost as great as the variation before the classes were homogeneously sectioned. He concluded, very appropriately, that the time-honored practice of "homogeneous grouping" does not provide homogeneous groups³⁴. Consequently, if a teacher in any ability-type sectioning situation thinks that his pupils are so much alike in all aspects of reading development that they can be given practically identical instruction, he will certainly fail to help the youngsters make outstanding progress.

The obvious reason for the failure of all types of homogeneous grouping plans, then, is that they often mislead teachers into believing that their children really are alike in their specific instructional needs. Departmentalized and interclass grouping plans have tended to complicate the problem further by requiring the teacher to work each day with more children than he has time to give diagnostic attention and highly differentiated learning tasks. It is evident that schools must adopt plans that offer more opportunity to study the individual child and set up instructional programs that are *dramatically differentiated* in breadth, pacing, available teacher resources, and available materials resources.

PRACTICES THAT MAY INCREASE FLEXIBILITY

TEAM TEACHING. A promising practice that has received much attention in the Pittsburgh area is team teaching. It provides opportunities for children to benefit from the capabilities of different teachers while still being guided and counseled primarily by a homeroom teacher. Group sizes may be varied fairly readily for diagnostic and differentiated teaching.

Unfortunately the limited research available on team teaching suggests that schools are not profiting as much as possible from its special qualities. One two-year study compared progress of several hundred pupils in a team situation with others in self-contained classes. During the first year the self-contained classes made significantly greater gains on standard achievement tests; the team groups improved enough during the second year so that differences were not as great³⁵. A primary team leader in Pittsburgh did a master's study which suggested that children in first grade team classes did not achieve as much growth in reading as children of equal readiness in classes in the same school a few years earlier before teaming was introduced. The generalizations made from this study could not be made with perfect certainty because a revision of the reading test that was used had resulted in some differences in norms between the years when the data was collected; also, the faculty in the teaming era was considered to be much more capable than that during the earlier period³⁶.

It is entirely possible that team teaching of reading will not provide maximum results unless teams are kept *small* enough so that *every* child can be studied individually. This is not often true in current large team situations where those who appear to be succeeding are given a fairly uniform instructional dosage, and only those who are in obvious difficulty are given analytical assessments of progress and needs.

NONGRADED ORGANIZATION. In the fall of 1965 an NEA survey revealed that one-third of 353 responding school systems of over 12,000 enrollment were trying out some form of nongrading in some of their schools³⁷. Nongraded procedures have been thoroughly described by Goodland and Anderson³⁸, and interest in this form of organization is increasing because its main purpose is to make differentiated pupil progress the *usual* procedure instead of the exceptional one. In graded schools it generally is a traumatic experience for a child to be held back a year, and the brilliant child is rarely allowed to progress at the rate he could. Retention or acceleration usually means repeating or skipping a year's work, thereby either wasting time that a slow child badly needs to move ahead from his current progress level, or requiring that a bright child

omit certain fundamental experiences that he could quickly complete if given an opportunity. The nongraded school is one where attention is focused on the child as an individual; he is given a program of study that is adequately rich for his purposes and paced at the rate he is able to move successfully. Awkward delays and jumps in progress are not required in order to keep him in step with a whole class, because he works during the various weeks and months with whatever small group in his room is engaged in the same type of activity he is ready to undertake.

The nongraded school offers *no* single mold that all children are forced into regardless of their personal make-up. Instead it offers a general sequence of learning experiences that can be broadened or constricted, slowed or accelerated in accordance with the child's rate and direction of growth. Some schools, incidentally, have misinterpreted the nongraded concept of individual progress through a sequence of learnings, and have initiated a system of homogeneous sectioning to provide different levels of work for children of a given age. Although they claim to be nongraded, they really are more closely graded than the usual school.

The research on nongrading is in its infancy. It is not easy to carry out for two reasons. First, many teachers in graded schools are so effective in differentiating instruction that their classrooms are quite nongraded in some areas of study; this makes it difficult in experimentation to be certain that nongraded school work is being compared with work done in a really graded situation. Second, nongraded schools usually move into this organization gradually, so they cannot easily compare achievement of their classes with their own achievement at an earlier time when they were entirely graded. A few interesting studies have been completed, however.

One experiment produced results unfavorable to nongrading. Carbone used a matched pairs design to compare progress of 122 children in nongraded primary units with progress of 122 children in control schools. Although instructional practices in both schools were described as similar, he found achievement significantly higher in graded schools, and he observed more social participation there, too³⁹.

In another study, Hopkins, *et al.*, found no significant differences between reading achievement in twenty nongraded classes and twenty-five graded classes during three years of work. Teachers of nongraded groups consistently mentioned a high level of parental satisfaction with the program. A series of annual investigations of teachers' satisfactions produced thirty-three points on which nongraded teachers were more satisfied and twenty-three points on which graded room teachers were more satisfied⁴⁰.

At least three studies have produced results favoring nongrading. In both 1960 Skapski's report of work in a Vermont community⁴¹, and Ingram's report of experimentation in Flint, Michigan⁴², indicated that children in nongraded primary classes had made progress significantly greater than that of children in graded schools which practiced ability grouping. In 1964 Hillson and three colleagues described an investigation in which they randomly assigned twenty-six matched pairs of children to graded and nongraded primary classes where they worked for a year and a half before being tested. The nongraded pupils scored significantly higher at the .01 level on the Lee-Clark Reading Test and the Stanford Word Meaning Test. On the Stanford Paragraph Meaning Test they were higher at a level approaching significance⁴³. In an additional note Hillson later indicated that the nongraded children still maintained their strong lead after completion of the three primary years⁴⁴.

Reports by Halliwell⁴⁵ favoring nongrading, and by Kierstead⁴⁶ showing no significant differences, cannot be adequately evaluated because it appears they may have followed a different concept of nongrading.

MULTI-AGE SECTIONING. Another type of organization that focuses attention on the individual is multi-age sectioning. This is the placement of children of two, three, or more age levels in a classroom without considering levels of achievement. Small flexible groups are formed within the room with no regard for age in order to direct learning as needed. Thus multi-age sectioning usually includes the features of nongrading wherever it is practiced.

One noteworthy experiment with multi-age sectioning was undertaken in Torrance, California, and was reported by Rehwoldt and Hamilton. They matched a number of children in this program with others in a graded program and made eighty-four comparisons of group progress. Results indicated twenty-four of the comparisons significantly favored the multi-age groups, while only three comparisons favored graded classes⁴⁷. The multi-age program was continued successfully for a number of years in Torrance, but was recently dropped for unexplained reasons.

CONTINUOUS PROGRESS PLAN. A few schools have attempted to initiate a continuous progress plan that embraces several features of other plans to provide flexibility. At Falk School, the laboratory school of the University of Pittsburgh, the organization includes multi-age heterogeneous sectioning, nongrading, and modified team teaching at the elementary level. A Primary Team includes two heterogeneous classes of six and seven year-old children plus a few who may be five or eight. Each

reading group within the classes probably will include children of all age levels at various times. The two teachers and the student teachers in the team plan closely together, and a child who sometimes does not fit in any group in his own room may go across the hall to work with a group there for several weeks or longer. While one or two children who are progressing more rapidly than all of the others might be moved up to work with a more advanced team at any time during the year when the teachers and his parents feel he should, most of the older children will not move up until the end of the school year even though they may be doing work at a very advanced level. All the younger ones and the older ones who are progressing especially slowly will remain with their same teacher another year. This makes it possible for them to begin rapid advancement immediately when they return to school in the fall with no waste of time while a new teacher attempts to determine their profiles of progress.

A Midgroup Team includes two classes in which most of the children are eight and nine years old, along with some who are seven, ten, and possibly eleven. An Intermediate Team provides for children who are ten and eleven, along with some who are nine, twelve, and possibly thirteen. At the junior high school level the interage grouping still operates to some degree, but it is made more difficult by the necessity of teacher specialization in order to provide the quality of program needed for some very advanced students⁴⁸.

Test results indicate that children have continued to achieve at highly satisfactory levels while the continuous progress plan has been gradually put into operation. At the close of the first year of multi-age grouping teachers were asked to list the names of specific pupils who has been more appropriately challenged and had been socially more comfortable under this system than would have been possible under single-age sectioning. A very significant number of children were listed.

MAKING JUDGEMENTS ABOUT ORGANIZATIONAL PATTERNS

In considering the features of various organizational plans it becomes readily apparent that research dealing with these matters is extremely difficult to carry out and evaluate because of the many variables that cannot be easily controlled. Consequently some decisions about suitable organization to encourage flexibility of reading instruction and other qualities of excellence in education must be made on the basis of personal value judgements. Too often decisions are made on the merits of only one or two features while many others are overlooked. The following criteria are recommended for consideration in judging the effectiveness of school organization plans.

CRITERIA FOR EVALUATING ORGANIZATIONAL PATTERNS

A. FACTORS RELATED TO CURRICULUM CONTENT AND STRUCTURE

The organizational patterns of schools and classrooms should contribute to the effectiveness of curricular planning and experiences. In view of the purposes of modern American education, the best curriculum plan:

1. Places special value upon the uniqueness of each learner.
2. Provides both balance and opportunity for correlations among the various areas of study.
3. Structures expected outcomes in continuous, developmental growth sequences that include provision for spaced review.
4. Expands or contracts its offerings in depth and breadth to fit the varying capabilities and purposes of learners at different times.
5. Provides a variety of types of learning experiences to capitalize upon learners' different interests and modes of perception.

B. FACTORS RELATED TO THE PERSONAL SUCCESS OF THE LEARNER

Obviously the organizational patterns of schools and classrooms should always enhance rather than inhibit the child's opportunities to become an increasingly adequate person. Unfortunately some patterns have had negative effects.

In order to stimulate maximum pupil growth today's school:

1. Develops a warm supportive teacher-pupil relationship.
2. Provides experiences which will help the learner see himself as a worthy, adequately capable person.
3. Provides experiences which encourage the child to interact with others in ways that strengthen his social understandings and habits, as well as his academic competence.
4. Develops habits of constructive self-direction through increasing opportunities for purposeful independent work.
5. Helps various pupils set somewhat different academic goals that will provide challenge and stimulation in accordance with their different capabilities.
6. Offers a consistent work load rather than one which fluctuates greatly from day to day and week to week.

C. FACTORS RELATED TO TEACHER EFFECTIVENESS

A desirable pattern of school and classroom organization:

1. Makes the teacher fully aware of the extent and types of individual differences among children.
2. Provides for frequent evaluation of pupil progress in terms of individual pupil capability rather than class standards.
3. Enables teachers to do individual diagnostic appraisals and corrective teaching for most children who encounter temporary difficulties.
4. Makes fairly comprehensive pupil records readily available for entering notes about significant behaviors and for studying when analyzing problems and progress.
5. Provides enough flexibility of scheduling to permit teachers to readily change or extend daily time blocks and to alter curriculum plans in order to capitalize upon various types of learning opportunities.
6. Utilizes the special capabilities of teachers as fully as possible.
7. Makes efficient use of teacher time, providing the maximum amount of learning possible for the amount of instructional time and effort expended.
8. Is reasonably economical in respect to teacher-pupil ratio and utilization of school facilities.

A WELL-CONSIDERED POINT OF VIEW

It is apparent that the extent of human differences is so great that tremendous flexibility is required in order to meet the instructional needs of individuals at different times as they progress through each school year. School organization plans intended to permit whole-class teaching are entirely inadequate as procedures to provide the variations in instructional quality and pacing that are required for outstanding learning. At the elementary school level departmentalization and types of homogeneous sectioning offer nothing more than the traditional self-contained classroom, especially one where the teacher is supported by a staff of readily available consultants and special subject teachers. At the secondary levels increasing teacher specialization is necessary, but steps must be taken to counteract the tendency to see children en masse instead of as individuals whose personal traits are entirely unique.

School organization plans cannot provide adequately for differences; they can only free the teacher to do so. The most promising procedures for accomplishing this are those that focus increased attention on the child as

an individual and then marshal varied resources to fulfill his needs. Team teaching supplies teachers of varied talents; nongrading and multi-age sectioning force us to assess achievement carefully; and flexible grouping within one room or among two or three rooms makes possible the teaching of each child along with others who can profit from the same experiences at any given time. Individually prescribed work undertaken in a small group within this organizational framework provides necessary opportunities for social interaction, and it is reasonably efficient in its use of teacher time. Such is the hope for the future of those who sincerely want to contribute to excellence in the teaching of reading.

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