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Grouping in Elementary Education

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Grouping in Elementary Education

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Submitted in partial fulfillment of
requirements leading to the degree of
Master of Science in Education.

State University College
at Brockport, New York

August, 1962

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INTRODUCTION

The prime objective of this paper is to explore the question; Can a classroom teacher through investigation of relevant professional literature, receive adequate guidance in the use of grouping as a means of organization for instruction?

Literature on this topic suggests that grouping is not only of value, but probably essential in many learning situations. Furthermore, grouping is one of the few feasible methods for individualized instruction that may be incorporated into our present educational framework of one teacher classrooms.

The above hypothesis has led the researcher to:

1. Examine relevant professional literature in an attempt to bring to light many of the ramifications involved in the organization and evaluation of instructional groups.
2. Engage in a field project, basing the grouping procedures on currently accepted practices as identified in the above mentioned literature.
3. Evaluate the quality of guidance received from the literature.

Recommendations for further research are included as a result of the experience described above.

CHAPTER ONE
BACKGROUND DATA
GROUPING DEFINED

Ever since the one-room school house, grouping has been a major way in which teachers have separated children at different levels of learning, their major objective being, not just to teach smaller groups, but to give systematic instruction to children and to provide for their individual needs.

MERITS OF GROUPING

In discussing the merits of grouping, it should be noted that, although the following criteria are all desired values of grouping, they are not the only values. One might even question whether they are the best. As pointed out by Shane and Yauch, "Educational leaders will do well to develop a personal sense of direction with regard to grouping practices consistent with wholesome child development practices."¹

Proposed as a summary of values the following eight points are presented:

FIRST - good grouping should provide for individual differences among children, the size of the group being kept reasonable and the structure flexible.

1. Shane and Yauch, Creative School Administration, p.309.

SECOND - the structure of the grouping should be such that it encourages desirable interaction among the children and reduces the tendency to develop social cliques or splinter groups. The structure should work for social cohesion.

THIRD - grouping should permit a substantial amount of control and direction by the pupils in cooperation with the teacher. This assumes that the nature of the curriculum is not so narrowly conceived that the subject matter and experiences in which the members engage are automatically predetermined.

FOURTH - grouping should serve to encourage the use of such subject matter as will best serve the individual learners progress toward maturity. This suggests the importance of flexible and tentative grade placement of subject matter.

FIFTH - grouping should encourage multiple, varied approaches to learning which recognize that children learn in many different ways: some by logical organization, some by direct experiences, others by attacks upon abstract or theoretical problems.

SIXTH - grouping should make it possible for teachers to study their pupils in varied social situations which will discourage teachers from over-generalizing about children in general.

SEVENTH - grouping should provide teachers with a psychologically comfortable working climate, free from unreasonable strain, haste, and pressure, to achieve arbitrarily-established standards or goals.

EIGHTH - grouping should create a wholesome climate socially, emotionally and academically for children, free from unreasonable demands for performance not yet justified by their maturity level.

At this point it should be noted that good grouping, if it is to be of any merit, must be based upon sound grouping practices which frequently require an imaginative reorganization of many of the features which characterize today's schools. It is not a work of magic to divide a class of children into separate groups. It is merely a more expedient way of providing for individualized instruction which the children would not ordinarily receive. Individual differences will still exist within the groups and must be provided for, but, "the need for groups diminishes with a decrease in the size of the class,"² due mainly to a corresponding decrease in individual problems.

2. Spain, Drummond, Goodlad, Educational Leadership and The Elementary School Principal, p.196.

PURPOSES OF GROUPING

Grouping serves a functional purpose in that a child can be moved, at the appropriate time, from group to group so that he may constantly be placed in a situation in which he will be challenged to learn and to realize accomplishment. In a situation such as this, the child can be evaluated at shorter intervals, and on a much more discriminatory basis. Here, too, periodical changes may motivate a child to aspire to membership in a more advanced group or to stay with the group if he begins to lag behind the others.

THE GROUP PROCESS

In defining the group process it is important to note that the relationships within a group are based upon an attitude of participation and cooperative interaction. Furthermore, the group process is the way in which individuals function in relation to each other, while working toward a common goal. It is shown by educational psychology that not only basic school outcomes are realized, but basic everyday attitudes and interactive behavior are also attained by the group process.

The group process is not merely grouping for the sake of grouping. It must to be a successful venture, achieve something. Thus, a group of uninformed pupils who share nothing, achieve

nothing. To be successful, goals must be pre-set. The group process must be problem-centered and the problem must be the concern of the group. The group process affects all individuals concerned because each person's contribution affects the basic problem, which in turn affects all the members of the group as no other process or experience can. It is in this type of real experience that a person develops all the personal, social and moral traits of a socialized person.

THE TEACHER AS A GROUP MEMBER

It should be noted that the teacher is a member of a group of learners, and that it is a wise teacher who does not pretend to know everything, but approaches the pupils with the idea that he too seeks help at times. A wise teacher will use the technique of explaining to the pupils that he would also like to learn more about a subject as a part of the group, and that he is willing to share his information. This idea of the teacher as a learner would help the teacher out of many a tight situation found in the autocratic classroom in which the students are trying to "catch" the teacher. This, points out Thomas,³ has been in many cases, a major reason why teachers "steer away from" teaching the things with which they are unfamiliar. This must not be misconstrued though, as a defense for an inadequate teaching job. A teacher must have an intimate and facile knowledge of any subject matter used, as well

3. R. M. Thomas, Ways of Teaching, p.314-15

as an intimate knowledge of the ways in which we learn. Also of importance, a teacher must know how to invite and encourage inquiry. A teacher fundamentally ignorant of the structure of his society, and equally ignorant concerning the growth of human personality, cannot aid individuals to become citizens of their world.

HISTORY OF GROUPING

PRE-GROUPING ERA

In the past century in American education many diversified plans for grouping have been initiated, discarded, modified, or accepted. In the discussion of the history of grouping it should be again stated that beginning with the one room school house grouping has been a major way in which teachers have separated children, their major objective being a method of systematic instruction. After nearly one hundred years of experimentation, of the various grouping plans devised, several have stood the test of time. In the earliest form of school organization, the one room school, it was not only natural but necessary to depend upon individualized instruction considerably. This was due mainly to the wide range in ability, background and age. This wide range in ability, maturity and age made grouping virtually impossible and because of the small size of the classes needless. This period in educational history is appropriately named by Shane and Yauch the "pre-grouping era."⁴

GROUPING BEGINS

Growing enrollments of classes made this semi-tutorial program of instruction highly ineffective.

4. Shane and Yauch, op. cit., p. 292.

Later, by what seemed to be a natural process, the classes were split into younger and older groups of children forming what was next to be called the "grade grouping method."⁴ Grade grouping was introduced with the logical purpose of keeping children with the chronological age mates with whom they entered school. It was at this point that the factor of individual differences among children immediately began to make itself felt in the graded school, for inextricably correlated with age is the matter of pronounced differentiation in all levels of achievement. Further understanding of the rationale underlying early attempts at grouping are explained by Shane and Yauch:

"The patent ability of some children to meet the standards set by the graded school and the apparent ease with which other children mastered the material and then proceeded to squander their time in class, finally led to wide spread study of ways in which to cope with individual differences."⁵

This wide spread study and concentration led to the eventual method of ability grouping which by the 1930's were accepted, and unfortunately was applied with rigidity. This ability grouping is still in widespread use with a reluctance to modify observable in most school districts.

GROUPING BECOMES VARIED

Social-maturity grouping another type of grouping that has arisen within the last few decades, was probably founded as a result of an organized resistance to the almost universally

5. Shane and Yauch, op. cit., p. 293.

accepted ability grouping method. Social maturity grouping has as its purpose the creation of a well balanced group which can work effectively under the guidance of a teacher. This social maturity approach is less an effort to bring together children of like academic ability, than an attempt to provide children with group situation opportunities congenial to their development. It is assumed in this situation, that children will learn best when working with members of their natural peer groups.

Arising out of the social maturity approach to grouping, was interest-activity grouping. This type of grouping, Shane and Yauch⁶ point out, has made provision for groups of children with special interests and abilities to convene at the same time, to share in special activities reflecting mutual interests. In these activities, children with similar enthusiasms and talents have an opportunity to work together, to satisfy interests, and to increase their abilities.

In summary, it is noted that grade grouping was introduced as a means of handling more conveniently growing numbers of school children and to deal with a wide range of individual differences. Next, ability grouping was introduced to provide for individual differences by dividing children into separate homogenous groups. Social-maturity grouping followed, and tended to stress well balanced combinations of children, by

6. Shane and Yauch, op. cit., p. 295.

recognizing individuals through the enrichment of study programs for the gifted child, rather than by segregation or acceleration. The final type of grouping introduced was based upon special interest activity, and had as it's main objective the grouping of children on the basis of mutual interests.

Thus far, grouping has been discussed on the basis of over-all school grouping. At this point it should be stressed that grouping for instruction within the classroom follows much the same pattern in many schools. Harold G. Shane,⁷ in a survey made of a nationally selected sample of thirty-five suburban schools, with programs of selected excellence, reveals that in such communities a tendency to favor a composite approach to grouping is present. Ability grouping was used in 11% of the schools. The social-maturity approach was used in 18% of the schools, and a simple chronological grouping in 32% of them. But a composite approach of the ability, social-maturity and chronological grouping approach was used in 39% of the schools.

INTRA-CLASS GROUPING

In the grouping of children within the classroom, Shane and Yauch point out that grouping within the classroom may be one means of resolving the issue of the unit classroom versus the departmentalized presentation of subject matter. Also stated is the opinion that at all grade levels good intra-class grouping can and probably should stem from, and revolve around

7. Shane and Yauch, op. cit., p. 297

some sort of teacher-pupil planning. This will tend to reduce the separation of children on the basis of ability. Some selection is inevitable, however, through a child's natural non-selection of other children who are more advanced than they. The separation of pupils will then be placed more on the basis of social, interest and maturational levels.

In the intra-class grouping of pupils the teacher does not, as a rule, concern himself with measures of capacity, as has been the case within the broad, school as a whole, situation. The teacher concerns himself mainly with the immediate learning and adjustment. Relative success with the objectives or purposes for the day, topic, or unit should be the basis for this method. Also important is temporary reorganization of grouping which will result in more effective learning. Teigs points out that:

"to serve its purpose, all intra-class grouping should be done on reliable evidence," and that "often, the most accurate and quickest method of determining relative success is a short diagnostic test."⁸

No matter how homogeneous a group may appear, there are still individual differences that are of great significance to the learning process. Because of these differences, grouping must always be tentative, based upon the best evidences of achievement available, and constantly revised as evidence shows a need for such action.

8. Teigs, E. W., Tests and Measurements in the Improvement of Learning, p. 282.

There was a time in elementary schools, when children were grouped for all purposes on the basis of reading ability only. This type of grouping is still prevalent and results in the dangerous stereotyping of children, not on the basis of their general ability, but on their ability to understand abstract symbols. Whether a child is a member of the Bluebird, Cardinal, or Canary reading group, he is still very much aware of his general ability in reading. This, too, can have an adverse effect upon the children causing them to be too critical of their ability to realize success in other subjects.

The types of grouping, in summary, are as varied as there are situations to justifiably warrant their use. If one is at a loss as to which type of grouping to choose, he may consult one of the many previous experiments that have been conducted in grouping and group evaluation, and which may be found in almost any library of educational research.

PREVIOUS EXPERIMENTS IN GROUPING

In the discussion of previous experiments in grouping for individualized instruction, Breed⁹ outlines several plans or experiments used to determine the values of this type of instruction.

9. Breed, T. S., Classroom Organization and Management, p. 123.

SEARCH'S METHOD

Search's method in Pueblo¹⁰ is described as being a method based upon the theory that, in the ideal democratic school no two children would follow the same course of study or have the same tasks. They would, however, all need to learn the use of the same elementary tools of education. Moreover, the different children would hardly have any identical needs. Search's method is illustrated in a report of a Latin class in the Pueblo Central High School. In this report it is noted that the class work was distributed over one-hundred days, all work to be done in class, and with no home preparation of lessons. The reading of the text was unattended by the usual collateral work in grammar, composition and historical reference. It was noted by Search that while the slowest pupil in the group mastered forty chapters of the text, the most advanced pupil mastered 140 chapters; or three times as much. "This," states Breed, "is a ratio quite consistent with measures of individual differences."¹¹

BURK'S PLAN

In the plan of Frederick Burk¹² a series of self instructive bulletins were prepared to cope with the need for material

10. Breed, T. S., op. cit., p. 123.

11. Ibid., p. 125.

12. Ibid., P. 125.

that would enable the pupil to proceed with little or no help from the teacher. In addition to individual work provision was made for group activities. The material as presented by Burk was in the form of short steps or goals, each goal with a specific skill to be mastered. Self-corrective tests were also distributed that would reveal pupil weaknesses. These were followed by supplementary drill exercise when needed. As brief as the description of this method is, it can easily be seen that the most outstanding features of the method are that it is; self-instructive, organized by goals, self-corrective, supplementary in drill when needed, and group-oriented. This method although first conceived in "1913"¹² is possibly a forerunner of today's method of programmed learning.

SPECIAL CLASS GROUPING

The special class movement is due largely to the influence of Binet and Simon who in 1905, after long experimentation published their famous intelligence tests designed primarily for the detection of mentally defectives. It was from these tests that the success of segregation came to be known. Also, about this time VanSickle in Baltimore, adopted a plan of organizing special classes for children on the opposite end of the intelligence scale. This organization of children into special classes is in effect a method of homogeneous grouping for individual instruction and evaluation.

12. Breed, T. S., op. cit., p. 125.

The proponents of homogeneous grouping in the modern sense simply carry the logic of this procedure to its natural limit.

STUDIES IN ABILITY GROUPING

Among the more carefully conducted studies in ability grouping are those of; "Clark, Nettels, Kefauver, Purdom, Breed, Keliher and Souvain."¹³ Clark reclassified pupils in four elementary schools with average I.Q.'s below 100, primarily on the basis of reading ability. Arithmetic, language and the like were of secondary importance. The achievement of all four schools was raised considerably above average. In a summary of teacher judgment, as to the comparative value of this method, it was noted that by all fourteen criteria used to evaluate this method, a greater percentage were convinced of the superiority of the method, as opposed to the smaller percentage who thought the method brought no change or that it was inferior in value.

Nettles¹⁴ studied the problem of classifying pupils in mathematics and reached the conclusion that pupils may be ranked in groups for instructional purposes in mathematics with an expectancy of success by the coefficient of (.80).

Kefauver¹⁵ investigated the prediction of junior high school success of 110 sixth graders, and among other things concluded that, the most important single source of information for predicting success in the first year of junior high school

13. Teigs, E. W., op. cit., p. 125.

14. Ibid., p. 265.

15. Ibid., p. 267.

was the judgment of the teachers in the elementary school. The second ranking predictive source was found to be I.Q.; followed next by mental test or mental age scores.

Purdom¹⁶ using the experimental control-group technique in conjunction with standardized achievement test results concluded negatively that; pupils in homogeneously grouped sections do not gain more than pupils in heterogeneous sections when measured by standardized tests. Also concluded was the idea that homogeneous grouping on the basis of intelligence tests does not reduce failure.

Keliher¹⁷ criticized all previous studies because they conceived and recognized individual differences only in terms of subject matter. She emphasized the importance of recognizing the whole child in any form of grouping. Her conclusions included that homogeneous is not in accord with progressive theory and does not **accomplish** its avowed purposes.

Breed¹⁸ studied five methods of grouping and compared results. In his experiment he used the following methods of grouping:

1. Achievement.
2. Intelligence.
3. Ratio between achievement and intelligence.

16. Teigs, E. W., op. cit., p. 267.

17. Ibid., p. 268.

18. Ibid., p. 268.

4. Average between achievement and intelligence.

5. Achievement supplemented by intelligence.

He concluded the third method to be the least desirable, and the fourth and fifth with identical results to be the most accurate.

Souvain¹⁹ attacked the problem from still another approach. He obtained the opinions of professional and non-professional groups. These opinions conflicted sharply ranging from highly favorable to highly unfavorable in nature. Among his findings was that; where the I.Q. is used and weighed too heavily in grouping, teachers question the effect upon the development of resulting social attitudes. Also noted was that teachers, in schools where attempts have been made to differentiate curricula, are more in favor of grouping than others. Moreover teachers in lower grades tend to favor grouping more so than those in upper grades.

In summary, it can be stated that though many experiments have been conducted to determine the value of grouping in elementary education the results have been many and varied thus making it difficult to determine the value of grouping in general.

19. Teigs, E. W., op. cit., p. 269.

AN OVERVIEW OF HISTORICALLY
INTERESTING AND EDUCATIONALLY PROMISING
PLANS

As mentioned previously, in the past century in American education many diversified plans for grouping have been initiated, discarded, modified, or accepted. The following is an overview of some of the plans taken from work, which was originally assembled for distribution at the 1959 convention of the Association for Childhood Education International, and assembled by "Harold G. Shane."²⁰

1.) Ungraded Groups: In an earlier day, children in small schools in grades 1-8 were taught by one teacher who handled all subjects (and janitorial duties) especially in the 19th century U. S. These were the original ungraded schools.

2.) Primary-Intermediate Groups: These were introduced when the one room schoolhouse grew too large for one teacher to handle. This plan often resulted in a 1-4, 5-8, two room, two teacher school.

3.) Grade Grouping: This term simply refers to an arrangement whereby one teacher works with a given grade group. Such a grade group is usually a part of an elementary school based on a K-6 or K-8 plan. This is also in effect chronological age grouping or heterogeneous grouping.

20. Shane, Harold G., Grouping in the Elementary School, p.314-17.

4.) Heterogeneous Grouping: This is essentially the absence of a structured grouping plan. Children enter the kindergarten or grade one at age 5 or 6 and are taught by the teacher assigned irrespective of intelligence, achievement, etc. Individual differences are met through program enrichment.

5.) Homogeneous Grouping: Also known as ability grouping. This plan frequently makes intelligence readiness, and achievement test data the determinants of classroom placement.

6.) X. Y. Z. Grouping: This is a form of ability grouping in which the x, y, and z labels refer to three levels of intelligence or assumed potential performance.

7.) Intra-subject Field Grouping: This plan is most often used at the junior high and especially senior high levels. As used at the New Frier Township High School (Winnetka, Illinois) a student may be in an advanced ability group in mathematics, but in a middle ability group in English. As many as five different levels have been used.

8.) Vestibule Groups: As suggested by the title this type of grouping involves the placement of children in a waiting room type of situation. Through this procedure children without failing or repeating, spend one and one half semesters in one grade. In high school this would be comparable to a student spending five years in progressing through what usually only takes four years. In this system the use of grades 1-A, 1-B, and 1-C are found.

9.) Cooperative Group Plan: This plan originally conceived by James T. Hosis in the 1920's involves the grouping of teachers not children. Under this plan teachers work together under a group chairman to coordinate special area subject rooms (of which they were in charge of individually), into a unified learning experience.

10.) Winnetka Plan Grouping: The basic classroom in Winnetka is heterogeneous, but individual progress continues by the use of record forms, called goal cards, which encourage optimum academic growth by each individual child. This system employs the individuality of ability grouping and eliminates some of the problems involved in the basic homogeneous grouping.

11.) Dalton Plan Grouping: The classic Dalton plan was based upon individual progress, group interaction and a time budgeting contract plan, with the work for each grade laid out in the form of contracts. Subject matter was divided into two component parts, the academic and the physical-social. The academic part was presented by the whole class method and the latter by individualized instruction.

12.) Multiple-Track Grouping: This is another type of ability grouping in which children of varied ability complete a given number of units or topics at different rates of speed depending, upon individual ability.

13.) Platoon Grouping: Devised by William A. Wirt for use in Bluffton, Indiana in 1900 this plan sectioned children into two groups (platoons). These groups were so scheduled as to

have one group studying fundamental subjects in the classroom, while the second group used special rooms for activities. This plan was originally conceived so as to encourage efficient use of the school plant, and to achieve a balance between academic and social activity or creative work. This plan is also known as the Gary, Indiana plan, or the work-study-play plan.

14.) Woodring Plan: Paul Woodring in 1957 envisioned grouping aimed at helping both slower and faster pupils, in a manner such as that of the multiple track method, in his plan for reorganization of the American school system. He advocated, the K-8 organization be divided into a primary, ungraded, and a middle elementary school.

15.) Social-Maturity Grouping: This is a rather loosely defined plan in which it is suggested that grouping be heterogeneous but that the children be grouped when they leave kindergarten on the basis of social development and friendship patterns rather than ability. This plan suggests a high degree of professional judgment.

16.) Development Grouping: This loosely defined type of grouping connotes a method of grouping comparable to social-maturity grouping.

17.) Organismic Age Grouping: Again, a very loosely defined type of grouping, its name being coined by persons attempting to apply Willard Olson's concept of organismic age to the grouping of children at varied levels of maturity.

18.) Social Maturity-Teacher Personality Grouping: This

grouping refers to social maturity grouping coupled or linked to a consideration of teacher personality in the assignment of children. This program recognizes that teachers as well as children vary as individuals.

19.) Ungraded Primary Groups: This term is used to describe a situation in which grade levels as such are abandoned at the primary level, and where children work together in an environment conducive both to individual and to group progress. This is done without reference to grade levels or norms. In this situation a teacher may work with the same group for several years.

20.) Ungraded Intermediate Plan: Not widely used, this plan involves assigning a group of children in two or three grades to one teacher, for example grades 3-5 or 4-5.

21.) Split Grade or Hyphenated Groups: This plan involves the enrolling of children from two or three grade levels. This plan is used as a rule in smaller schools when there are too many children at a given grade level, and not enough at another. This plan for grouping is obviously an administrative-organizational device for the elimination of a new teacher.

22.) Departmental Grouping: Rarely used below the intermediate level, but now being tried, this plan involves the moving of children from one classroom to another for instruction, in several different subject fields, by different teachers.

23.) Intra-Classroom Grouping: This plan involves a teacher making use of various schemes for grouping within the

classroom, and is as a rule, part-time ability grouping.

24.) Inter-Classroom Grouping: This is merely a method of intra-class grouping, but designed on a basis of several classes at a certain given grade level trading students among different teachers. In this situation it is necessary for scheduling subject fields at the same hour, and for children to move between the number of grades involved, usually 2-3 grades.

25.) Inter-Grade Ability Grouping: Very similar to inter-classroom grouping and departmentalized grouping, this plan is different in that it is limited exclusively to shifts made within one certain grade level.

26.) Grouping Within a Classroom Through Teacher Pupil Planning: This type of grouping involves the creative planning of experiences with children in such ways as will eventuate in the selection; of various pupil activities to be developed, and responsibilities to be carried out. Once a topic or unit is selected the children and teacher discuss:

- A. What do we already know about the topic.
- B. What do we want to find out about the topic.
- C. How shall we go about it.

At this point committees are formed to attack the problem.

27.) Self Select Grouping: This grouping is closely related to the previous method but is diversified in that it allows the pupil to self select the work in which they will engage. This may be done on an individual basis, or on a committee or

group member basis, which in turn is part of the overall class objectives set down previously.

28.) Extra-Curricular Activity Grouping: This type of grouping is designed to group children (especially in semi-departmentalized or departmental programs) so that those in upper grade activities such as band, orchestra, or sports for example, can be free to rehearse or practice at the same hours during the day and week.

29.) Special Grouping For The Gifted: This grouping is used in schools, with large enough enrollments, to permit special groupings for high I.Q. children. These groupings go beyond the provisions of mere ability grouping, and segregate these high I. Q. pupils into special schools or centers.

30.) Opportunity Room Grouping For The Slow Learning Or Mentally Handicapped: This grouping may be described as the exact opposite of the previous method, and is characterized by special ungraded groups with small teacher-pupil ratios. Special training and instructions are provided and the method usually is for children with an I. D. of 70 or below.

31.) Self Realization Room Grouping For The Gifted: This is a grouping plan only in a very broad sense. This plan consists of a room presided over by a highly capable teacher, well equipped with study and research aids, and open during the day for gifted children in grades 1-8 to use as they see fit. This plan assumes that the gifted will be placed in the regular classroom, but can develop further knowledge through the expert

guidance afforded by this extra work given to supplement completed basic work in the classroom.

32.) Ungraded Four and Five Year Old Kindergarten Grouping: Under this plan, and depending upon his social and intellectual maturity, a child may spend one to three years at the kindergarten level. This approach is designed primarily to reduce the range of individual pupil differences.

CHAPTER TWOVARIOUS CONSIDERATIONS INVOLVED IN GROUPINGFORMING OF GROUPS

In dividing children into groups for instruction and evaluation there are many principles that an educator must consider if the grouping undertaken is to serve the best interests of the learners. As previously mentioned there are many arguments against, as well as for, grouping, and it is up to every teacher, individually, to decide whether grouping of the children would be the best situation in which a certain type of learning may be approached. After this decision, the type of grouping to use must next be considered. It is at this point that the teacher must decide to what degree the type of grouping chosen will serve the class as a whole.

Formation and evaluation of groups can only be done on the basis of accurate analysis of all background information, on all the children involved. Only after this analysis should a teacher concern herself with measures of relative capacity. When grouping, it is important to consider that groups are merely individuals brought together for the realization of a common goal. It follows logically that research into a child's records is conducted on an individual basis and not on the basis of the group as a whole. Each child must be regarded as an individual within a group, not merely as a group member.

DIFFICULTIES IN GROUPING

When grouping children, there are many practical difficulties to be considered. First; there are many small schools in which only single classes exist, although the number is declining due to the consolidation of many rural school districts. Second; in some schools teachers have two or three grades, and in many others one teacher may have pupils ranging from grades one to eight. Wide age-range is another difficulty to be considered, as well as administrative regulations based on tradition, expediency and common sense difficulties. An excellent example of this would be the classical "more seats in the next room"²¹ situation.

Other factors which tend to become stumbling blocks to effective grouping and classification seem to be the no failure program of some schools; units of work to be completed at certain grade levels; and an incompetence on the part of many teachers, to instruct groups effectively.

Still other practical difficulties to be considered in grouping, although not considered stumbling blocks, are the questions of the desirability of grouping for certain activities, and the attitude of some teachers that since learning has always been effective in heterogeneous groups, why change now?

21. Teigs, E. W., op. cit., p. 279.

The adjustment of the school to the individual differences among pupils has been a problem of chief interest to the formation of groups since the turn of the century. As a remedy, many suggestions have been made, such as; homogeneous grouping, miscellaneous grouping for individual instruction, more flexible plans of promotion, differentiation of methods and as a last resort in some quarters, even a differentiation of subject matter to fit different levels of ability. Finally, supervised study persists as one of the best solutions, according to many educational workers. It is questionable whether any one of these solutions may solve the problem, but it is conceivable that a combination of several or all can be used, in the solution.

GROUPING PRACTICES

Of the methods previously used in the classification and grouping of students, intelligence has become the most widespread in use since 1920. Breed points out that "if one were to set down the most extreme view regarding the sufficiency of intelligence for this task, it would appear that:

1. Homogeneous grouping of pupils should supersede miscellaneous grouping on account of the economy that it would effect in the process of instruction.
2. Grouping of pupils should be based on measurements of that which determines the educational achievement of pupils.
3. The educational achievement of pupils is determined by

their intelligence.

4. The intelligence of pupils can be ascertained by intelligence tests.
5. Intelligence should therefore be employed as the sole basis of classifying pupils for instructional purposes."²²

These propositions, although having much merit, are extreme in view and do not take into consideration the reliability and validity of the intelligence test used. Therefore, the propositions cannot be accepted in entirety; propositions one and two being the most feasible.

Classification on the basis of relative achievement is another basis used by many school systems today. This type of grouping has an advantage in the fact that it provides a safe index of the sum total of a child's abilities, both native and acquired, and does not draw its conclusions from the highly debatable results of general intelligence tests.

In consideration of the methods of grouping children homogeneously, there is no general agreement among experts in this regard. The kinds of data that enter into this problem would probably include the following; states Breed:

"1.) Chronological Age, 2.) Mental Age, 3.) Intelligence Quotient, 4.) Grade, 5.) Accomplishment Quotient, 6.) Application or Industry, 7.) Health, 8.) Home Environment, 9.) Nationality and Language Difficulty, 10.) Special and Unusual conditions bearing upon school success. Most of these, however,

22. Breed, T. S., op. cit., p. 93.

have little weight when used in comparison with mental ability."²³

By way of summary; I would repeat that in intra-class grouping, the teacher does not as a rule concern herself with measures of capacity, but with immediate learning and adjustment. In grouping in general, goals cannot be set, nor teaching procedures organized without accurate knowledge of pupils needs, abilities, ambitions, interests, rates of maturation, previous school life experience, health, general home and cultural background and many other phases of pupils' lives. Moreover, evaluations of achievement cannot be made, nor grouping attempted, without the guidance that comes from an accurate analysis of such background information.

OTHER MAJOR PROBLEMS INVOLVED IN GROUPING

Along with reporting pupil progress and promotional policy problems grouping has also been one of the most troublesome problems plaguing elementary education today. The following is a summary of some of the examples of the difficulties encountered in establishing grouping practices.

1.) Lack of Explicit and Reliable Data Pertaining to

Individual Children: Many schools lack information with respect to intelligence, achievement, social adjustment, etc. at a given time and hence have little reliable evidence on which to base grouping schemes. Assuming agreement has been reached as to what constitutes sound grouping practice.

23. Burton, W. H., The Guidance of Learning Activities, p.229.

2.) Pupil turnover, at least in some schools makes grouping difficult because information on new entrants is fragmentary.

3.) The Uneven Growth Patterns of Individual Children, make grouping hazardous. One is never completely certain that a child once placed in a group will always belong there.

4.) The Uneven Social and Academic Profiles of most individual children complicate grouping, at least as far as any type of ability grouping is concerned. Many children vary as much as a year in achievement from one subject area to another.

5.) Differences in the Philosophy, Experience, and Competence, existing among teachers in the same school building may place any arbitrary or uniform grouping policy in a precarious position.

6.) Grouping is Influenced by the Maturity and Competence of Administrative Leadership. No plan is superior to the effectiveness with which it is executed, and even grouping schemes of doubtful value, required by central administrative directives, can be made to work well by an able principal and staff.

7.) The Native of the Curriculum, or the locally developed design for the experiences children share in school, may facilitate or preclude effective grouping.

8.) The Nature of Teaching Aids, such as adopted textbooks and policies governing their use can have a positive or negative influence on grouping.

9.) The Size of the Elementary School Unit Bears, at

least indirectly, on grouping practices. Certain plans are feasible in large schools, with others workable only in schools of small enrollment.

10.) Personnel Resources May Make or Break Grouping Plans.

Some plans are feasible, for example, only when there is a principal with no teaching duties to absorb his time, or when there are available such personnel as school psychologists, a guidance corps, or special teachers.

THE GROUP PROCESSES

In the discussion of the group processes there are several other aspects which should be considered. The type of process used will depend to a large degree upon the age, ability and the type of grouping chosen.

The first type of process is the "Group work on a project or problem."²³ This process involves the definition of a problem as it arises, the planning of an attack and a solution to the problem and, lastly, a tentative summary of the group information as a solution emerges.

The "Group processes valuable in defining attacking and solving problems"²³ are listed by Burton as: Group planning, committee work, the sharing of findings and results, and research for the group. "Group discussion"²³ to be discussed later in detail, is another group process. It can be useful at any stage, a common example being buzz groups.

23. Burton, W. H., op. cit., p. 229.

"Group roles with special responsibilities"²³ such as group leaders, recorders, observers, and resource persons; as well as "General member roles"²³ are also processes and skills to be considered in grouping. General member roles, as do group roles, have titles that are usually self explanatory such as: Opinion seeker, information giver and opinion giver.

Lastly, the "Role playing technique" is another process or skill learned through the group procedure. Under this heading we find as an example the psycho-drama, which concerns the analysis and guidance given to an individual within a group, and which was developed originally as therapy. Another example is the socio-drama, which involves not one but several members of a group in which social interaction is a direct result.

WORKING AS A GROUP

In initiating work on a group basis it is important that group work follow basically five steps. They are:

1. A problem arises.
2. The problem is defined.
3. Research on the problem is carried out.
4. The problem is discussed.
5. The problem is summarized and tentatively concluded.

An interesting list of suggestions for the beginning teacher, and which will help to initiate a program of group responsibilities, is given in the text by E. J. Brown.²⁴ Dr. Brown

23. Burton, W. H., op. cit., p. 229.

24. Brown, E. J., Managing the Classroom, p. 24.

suggests that to develop individual responsibility as a group member the class:

1. Should try to plan its own assignment in one subject.
2. May set up rules and regulations, governing the room, on routine matters.
3. May consider, with the help of the teacher, punishments for infractions and violations of rules, before the offenses happen.
4. Carry out all committee work allocated to the group by school authorities.
5. Should function as a group in all school activities.

These are but a few of the suggestions given, but, as Dr. Brown states, are basic to the process of grouping.

MAJOR OPERATING PRINCIPLES OF GROUPS

In the discussion of the principles involved in grouping and evaluating, it should be pointed out that work given any group should include individual as well as group activities. There must opportunities for the follow up of individual interests through research, reading, and pupil-teacher conference. For some activities groups could be chosen without special reference to special abilities. This will point up many natural friendship ties, which will arise through natural class interaction, and which can be used in further grouping plans or even re-grouping. This may be accomplished through the use of occasional socio-metric checks, or by conversation and dis-

cussion techniques.

In seeking to develop an instructional program around the real life problems of their pupils many teachers are finding less need for conventional grouping procedures, that seek to group children of like ability in particular skills. They find that children tend to cluster around a particular project on the basis of interest rather than likeness in abilities. Differences in abilities are then provided for through selection of a wide range of instructional materials; selection of individual activities that contribute to the total project; children assisting one another; and teacher-pupil conferences.

Another important principle that is to be considered in the grouping of children is the social climate, or the social aspects involved when children are placed in smaller groups, which is quite different from their inter-relationship as part of a larger group.

Still other important principles involved in the grouping of children are the interest development or motivational procedures involved in group teaching, and the actual teaching techniques to be used, as well. The guidance of groups, the testing of groups, the making and the giving of the tests, and the computation, interpretation, and reporting of group scores are all of considerable significance when a grouping situation is undertaken.

OBJECTIVES

Another aspect to be considered in the group process of in-

struction, is the importance of specific objectives at all phases of the learning process, just as though the class had never been divided. When a group of children is no longer in need of a group situation, the group should be dissolved. Group retention after this point is only useful in some types of follow-up activities.

It should be noted that merely getting a group together, and to start them is not enough. There must be some sort of organization, leadership, and an effective plan of attack. The approach to the problem should be highly structured and business-like, and should be in terms of qualification of the major objective, that of either solving, or fostering an awareness of a problem.

In order to realize any success in group thinking there are three basic conditions that must be met. First; a common problem or objective, is necessary. Secondly; there must be a real understanding of the problem. Lastly, there must be a clearly defined method of reaching the objective or solving the problem. It should be mentioned that the most valid way of determining the expectations of members of a group is to outline these expectations before the project is begun.

PROBLEM SOLVING

In the solution of problems through the group process there are three criteria by which group processes are valuable. First; "Group planning"²⁵ through pupil participation will help

25. Burton, W. H., op. cit., p. 230.

to motivate pupils to identify themselves with the undertaking. Second; "Committee activity,"²⁵ or the sharing of experiences through pupil research, will help the pupils to realize and discover much more information than would ordinarily be realized due to the time and abundance of materials factors. Third; "Sharing,"²⁵ on the part of the children, would be a natural outcome of the committee process, and will tend to bring into the total group much more information. This will be the case because of the large numbers of children doing research, and sharing experiences. The sharing process will also tend to help the children of lesser ability realize some accomplishment. This is true because of the fact that different kinds of skills and abilities are useful to the group and children discover how to make their own unique contributions to the group. At this point it is the teachers role to encourage sharing without dominating the normal interaction of the group.

THE INDIVIDUAL AS A PART OF A GROUP

It is well known that as a result of modern technological advances we have come to realize the importance of human relations in the working and getting along together in groups. Yet it is also known that there is much importance given to a mature, poised, and socially independent personality. The fact that "75% of persons dismissed from their positions in trade, industry and technical occupations are dismissed for personality difficulties"²⁶ gives some insight as to the serious effects

25. Burton, W. H., op. cit., p. 230.

26. Ibid., p. 220.

group difficulties can have when applied to people at all levels, everywhere. The inability of groups to cooperate can lead to catastrophe on a world group basis. The very basis of our country's freedom is based upon group thinking and decisions. But, equally needed in a democracy is individuality of thinking by members of the group making the decisions.

SOCIAL CLIMATE

The social climate of a classroom is "crucial"²⁷ points out Burton, as he describes an experimental study conducted to explore the effects of social climates upon learning and personality. In this situation a number of school clubs and learning activities were led in turn by three different teachers. One conducted affairs with as thoroughly democratic methods as possible; another used autocratic methods; whereas a third proceeded with a somewhat laissez-faire attitude and with a general lack of control. Without being informed of this experiment the pupils were rotated among the three teachers. Records, both photographic and stenographic were kept of each individual group member, to be used later for the purpose of analysis and discussion. Later these records, with reports made by the pupils themselves, served as the basis for the conclusions drawn. It was noted that in the autocratically controlled group the leader was forced to assume more and more responsibility as time passed, whereas in the democratic

27. Burton, W. H., op. cit., p. 222.

situation the pupils gradually undertook more and more responsibility and carried it out successfully. The democratic atmosphere caused the pupils to be more friendly, cooperative, talkative, constructive in suggestions, and more appreciative in their comments. In the autocratic situation, the pupils, showed more tension, were either subdued or defiant, aggressive toward each other, and generally expressed more hostility, resentment, and competition. They did much less smiling, joking, and moving about. Under the democratic conditions, individuality within group efforts developed well, whereas work disintegrated under the autocratic method. Under the laissez-faire conditions, aggressiveness, squabbling and hostility increased. In the final analysis, it was noted that "the product and achievement under the democratic situations were distinctly superior to the other two."²⁷ When questioned as to their choice of teachers, over 95% of the pupils chose the one that used democratic methods.

GROUP DYNAMICS

Among the most important, of the many factors to be considered when grouping children, are the role of the teacher as a group member; the degree to which learning is enhanced; the extent of the motivation needed to interest a group in a subject; and the amount of guidance needed by any given group in achieving its goals. Also of importance are the factors of

27. Burton, W. H., op. cit., p. 223.

group testing and evaluation as compared with that on an individual scale; and the social aspects of grouping children. Burton points out that "the group process is the way in which individuals function in relation to one another while working on a common goal."²⁸ On the basis of this definition of grouping it is assumed that individuals should not be evaluated on the basis of how much the group accomplishes, but instead on a basis of an individual's total contribution toward the common goal of the group.

The degree to which learning is enhanced, the extent of motivation necessary, and the amount of guidance necessary are interrelated in that they are all dependent upon the type of group being taught. As the group begins to understand, through careful guidance on the part of the teacher who must to the greatest extent possible assume the role of a group member, that they are all working toward a common goal, they will, through the process of planning and sharing develop a greater interest in the subject than can be motivated by even the most skilled of teachers. An outgrowth of this procedure will be the fact that the more children can be led to see the need for planning sharing and working together, the more they will be interested and motivated to learn more about a subject. This in turn will decrease the necessity for guidance in the more traditional

28. Burton, W. H., op. cit., p. 224.

autocratic sense, and place it more in terms of pointing the way. The teachers role is to encourage sharing when readiness is present and manage without dominating. The teacher also aids the group in determining what is interesting and worthwhile.

ATTACKING A PROBLEM

In attacking a problem by means of the group process it cannot be over-emphasized that there is a primary, and a very definite necessity for a basic problem on which all group effort can be focused. It is from this point that the group process begins. The problem may be, one of the many to be asked by students, one of current events, special interests, or course of study material. After a basic problem is suggested the next step in the group process is that of definition of the problem. This problem definition gives the direction to be followed in the study or research of the **problem**. In many cases re-definition is necessary to the guidance of the group. The third step in the group process of problem solving is that of collecting facts, experiences, ideas, and other materials related to the subject. This material will bring many things to light never before encountered by the children and will naturally raise many questions. Herein develops the dynamic **snowballing** effect of the group process in which many doors to discovery are opened through the natural interest aroused by beginning research. It is at this phase of the process that the children must constantly be reminded of the original problem

so that they will not stray too far afield. In the fourth step, all material collected, all implications, possible solutions and other pertinent data must be considered and discussed by the group as a whole with all members having, both, the right, and the responsibility to contribute. It is at this phase that a child learns to think and to both, systematically and mentally, arrange material, and use it to solve problems. In the final step tentative summaries and conclusions are made which, in turn, may possibly lead to further discussion and problems. This, as mentioned previously, will also snowball and lead to continuous questioning, problem solving, and still further intellectual growth, which is the prime objective of education.

GROUP ORIENTATION AND MANAGEMENT

When starting group work seems to get off to a slow start, it is well to spend some time getting acquainted. It is possible that at first the teacher may note a defensive attitude on the part of the pupils, and justifiably so, as individuals wonder just what constitutes justifiable behavior. They may be looking around to see who's who. It may be some time in the cases of younger groups before the group process begins to function. In the case of more mature groups, they might get under way more rapidly. It is possible that even with adult groups there will be uncertainty, reluctance, and possibly even opposition.

GROUP DISCUSSION

Group discussion, although primarily aimed at the development of a conclusion, is an excellent method of getting the group acquainted and under way. As Burton points out "group discussion is useful at all stages,"²⁹ and that teachers who are concerned with the "how do you do it?"²⁹ of group discussion, can only, by trying to engage in group discussion, learn the actual details of the process. Among the major aspects of group discussion described by "Burton" are the following suggestions:

1. Each person should do his own thinking.
2. Group discussion is not a debating society, and as in any cooperative quest should be cooperative rather than competitive.
3. Ideas should be weighed as to which are the most worth discussing.
4. Keep the discussion from wandering away from the subject.
5. Avoid lengthy speeches by single persons.
6. Contributions that are not fully acceptable should be challenged.
7. Plenty of opportunity within the allotted time should be given to all members of the group to contribute.

29. Burton, W. H., op. cit., p. 231.

8. Seek a decision or vote on the question under consideration.
9. Lastly; summarize as accurately as possible all progress made in resolving the question in point.

The physical setting for the group process is another principle to be considered, and as Burton states "is far more important than thought of at first."³⁰ All members should be able to see each other and be able to interact normally. Quiet and protection from interruptions should also be secured, as well as an atmosphere conducive to as normal and pleasant a social situation, as possible.

A list of principles that constitute good "group living in a classroom"³¹ prepared by Burr, Harding, and Jacobs covers the problem so adequately that "Burton"³¹ reproduced it in full in his text. The following is a summary of the list.

1. Good group work originates with purposes, plans and problems as the children see them.
2. Group work begins by pooling the contributions of all members of the group.
3. Good group work provides appropriate responsibilities for committees and individuals.
4. Good group work teaches the individual how to participate effectively in cooperation with others.

30. Burton, W. H., op. cit., p. 234.

31. Ibid., p. 226.

5. Good group work depends upon democratic procedures for unlocking resources, resolving conflicts, and reaching decisions.
6. Good group work develops leaders who create conditions in which every member wants to bring his best thinking and work to the cooperative undertaking.
7. Good group work demands continuous appraisal of group accomplishment.
8. Good group work eventuates in broad participation, cooperatively efficient group action, and constructive changes in individual behavior.
9. Good group work calls for appropriate recognition for the group.

PROS AND CONS OF GROUPING

It should be kept in mind that grouping within the classroom, or within the school as a whole, is only one aspect of school organization. Promotion policies, curriculum organization and development, reporting and many other aspects of the school program are intimately involved in decisions that may be made in respect to grouping. Individual teachers need to be concerned also with grouping practices within the school, as well as in relation to their own classroom.

Attempts to divide heterogeneous pupil groups into homogeneous groups have often been described by the more or less synonymous terms of ability grouping or classification. Some common examples of this process may be given as the establish-

ment of special classes for subnormals, dull-normals and super-normals, all of which attempt to divide large groups of varied abilities, into smaller groups of more equal ability. Fundamentally, the claim of those favoring ability grouping has been that; pupils learn more and faster as members of a homogeneous group than those members of heterogeneous groups. On the other hand those opposing ability grouping contend that; grouping cannot be kept homogeneous because of the fact that children are constantly changing.

The principle factor in most systems of classification has been as Teigs points out "intelligence (M. A. or I. Q., or both)."³² More recently, chronological age, social maturation, pure heterogeneity, and other factors have been advocated, although most of the earlier plans for grouping were defended on the basis of argument rather than upon reliable evidence. Ability grouping although not the only type of pupil grouping, is by far the most widely accepted and used. As Teigs states in his text "an extensive literature has been produced in favor of ability grouping."³³ Many arguments such as the following have been added to, or amplified from the previous original claim that greater and faster learning results from ability grouping. These arguments for, as well those presented against ability grouping are presented in their entirety as outlined in

32. Teigs, E. W., op. cit., p. 262.

33. Ibid., p. 262.

the text by Teigs.³⁴

1. Children work better in homogeneous groups.
2. Children are more social minded in homogeneous groups.
3. Children accomplish more in homogeneous groups than when they are unclassified.
4. Grouping increases the enthusiasm of teachers, who therefore work more effectively.
5. Discipline problems disappear under homogeneous grouping.
6. Pupils invariably adjust better in homogeneous groups.
7. Superior students profit from the keener competition of homogeneous groups.
8. Moral deterioration follows heterogeneous grouping since so many will not work up to their best possibilities.
9. Inferior students are frustrated and defeated in heterogeneous groups.
10. Homogeneous grouping reduces retardation.
11. Ability grouping is inevitable outside of school; grouping in school is simply taking advantage of a natural law.
12. Teaching is easier in homogeneous groups.
13. Children are happier in homogeneous groups.
14. Instruction can be adjusted to pupil ability.
15. More pupils succeed at more things.
16. If heterogeneous grouping is carried to its logical conclusion, idiots and geniuses must be taught in the same class.

34. Teigs, E. W., op. cit., p. 262.

Among the arguments against grouping are the following:

1. Grouping is undemocratic; it will lead to deterioration of democratic ideals and institutions.
2. Grouping results in the development of undesirable personality traits, such as inferiorities and superiorities.
3. A co-operative class spirit cannot be developed when children are divided in this manner.
4. There is no inspiration for dull pupils.
5. Bright children overwork.
6. Grouping is fatalism and determinism; it assumes that individuals do not change.
7. Undesirable competition and selfishness are fostered in homogeneous groups.
8. Instruction is not adapted to groups of varying ability.
9. Groups cannot be kept homogeneous because children are constantly changing.
10. Grouping is not a substitute for teaching.
11. Grouping as carried on is largely arbitrary and much harm is done.
12. Parents are against ability grouping.
13. Homogeneous grouping aids in the perpetuation of the traditional emphasis on static abstractions.
14. Grouping impedes social progress.
15. Children most in need of help are branded as educa-

tional failures.

In summary; there are many pros and cons on the values of grouping and the group processes in general, but as a rule the positive values seem to far outweigh the negative at first sight. But as Teigs points out in many cases the basis of classification was not definite, groups were treated differently and many studies used no control groups rendering the studies "naive and erroneous" and producing "no real evidence in favor of either side."³⁵

In types of grouping there seems to be much evidence to the effect that grouping must be done on a basis of relative success and achievement and more preferably on a highly homogeneous basis, if it is to be most effective.

In the discussion of previous experiments it was noted that a majority of experiments found that grouping and group evaluation does tend to increase interest, motivation and learning, but that the amount to which it does is highly immeasurable. It is influenced greatly by many other criteria rendering methods of evaluation meaningless. Also noted is the fact that methods of grouping are so many and varied that it is almost an impossibility to measure one against another reliably.

35. Teigs, E. W., op. cit., p. 265.

CHAPTER THREE

THE PROBLEM

INTRODUCTION:

In restating the problem it is noted that grouping, if it is to be effective, must be based upon currently accepted practices and upon a careful research into the values of grouping as an organizational means of instruction. As listed previously under the definition of grouping there are eight points or values upon which grouping should be based.

STRUCTURING THE PROJECT:

In structuring the laboratory project portion of this research it is necessary to state briefly each value or guide to effective grouping, and how each is to be implemented into the structure of the project.

1. In providing for individual differences, each group is to be formed on the basis of interest in a given subject as well as ability.
2. The groups will be structured so as to provide for interaction, in that they will be instructed to share research findings so that all reporting groups will be interdependent.
3. In providing for substantial student direction and control, students will choose committee topics and on what committee they would like to serve (within a previously

outlined general framework.)

4. In provision for individuality, students will be encouraged to read widely and to contribute whatever they can.
5. In the provision for varied approaches to learning, committees will be allowed to report orally, give written reports, or share by means of group buzz sessions, formal discussions and art work.
6. In the provision for evaluative opportunities, use will be made of discussions, committee work, committee reports, buzz sessions and extra projects.
7. To provide for a comfortable working climate, materials will be made readily available. Desks, chairs and tables will be moveable for committee work and ample time will be allotted when needed.
8. In providing for a wholesome social emotional and academic climate, students will be allowed to pick their committees, have freedom in selection of material be encouraged to explore for other relevant materials, and to interact as normally as permitted by the situation that prevails.

DESCRIPTION OF THE GROUP:

This particular group of sixth grade students may be described as children of lower middle socio-economic background and having a particular social stigma of being 50% discipline problems. Approximately 25% of these students are borderline cases being too fast for an ungraded slow learner class, yet too

slow (C rating or lower) for a normal group. There are several students of very high caliber who were placed into this group, for administrative reasons such as late entry or for being discipline problems.

The range of scores for the general ability of this group was taken from the results of the Henmon Nelson test of general ability, and ranged from a low "D" to a high "C".

The range of scores for the reading ability at the start of the project was taken from the Iowa reading ability test and ranged from grade levels 2.5 to 7.1, a range of 4.6 years.

DESCRIPTION OF THE PROJECT:

A. Grouping will be experimented with in the following subjects:

1. Reading
2. Social Studies
3. Science

B. Division of the class will be into three groups for the purpose of instruction:

- | | | |
|-------------------|-----------|--|
| 1. Reading | Group #1 | |
| | Group #2 | Individual Text Books |
| | Group #3 | |
| 2. Social Studies | Group A - | Climate and Geography |
| | Group B - | People and Occupations Unit on Africa |
| | Group C - | History and Current Events |
| 3. Science | Group X - | Types |
| | Group Y - | Habits Unit on Animals |
| | Group Z - | Uses |

CHAPTER FOUR
PRESENTATION OF DATA
READING UNIT

I OBJECTIVES:

Group #1 - Objective: To complete units #1 - #8 completely in text "Wings to Adventure" (Grade 6) including understanding and use of vocabulary and workbook exercises. Extra reading to be chosen from class library and "loan plan" readers. (Grades 6 - 7).

Group #2 - Objective: To complete unit #1 - #8 completely in the text "Trails to Treasure" (Grade 5) including understanding and use of vocabulary and workbook exercises. Extra reading to be chosen from class library and "loan plan" readers (Grade 5).

Group #3 - Objective: To complete unit #1 - #8 completely in the text "Trails to Treasure" (Grade 5) including vocabulary and workbook exercises. Extra reading to be chosen from class library and "loan plan" readers (Grades 5 - 6).

II PROCEDURE:

In determining group composition for reading, the following guides were used:

1. Previous teachers' end-of-the-year stopping points, or last page completed in the last text used.
2. Individual oral and silent reading tests to determine

comprehension levels and general ability. (To be administered during the first two weeks of school.)

3. Cumulative records describing various background information such as scores on S. R. A., I. Q. and other tests.

4. Temporary grouping and assignments until more extensive evaluation could be made, followed by a process of re-grouping.

After the children had been adequately grouped three things were done:

1. Each group was given a text from which they could do their basic work-study skills such as vocabulary, workbook exercises and silent and oral reading.

2. Each group was given a "loan plan" reader from which they could do extra reading. These extra readers were chosen at a difficulty level corresponding to the level of the basic text which was being used.

3. In addition to the basic text and loan plan readers a class library selection of over 100 books was made available for general use by all three groups. The children were allowed to choose their own library books, consuming them at their individual rates.

III Primary Observations:

Readily noticed were the facts that:

1. Group #1 which was the most advanced group at the outset had very little trouble in mastering the many basic skills involved in reading and began to progress rapidly.

2. Group #2 which, at the outset, was not too far removed in

level from Group #3 began to advance also, but not quite as rapidly as did Groups #1 and #3. As the work progressed and the vocabulary became more difficult Group #2 required increasingly more help.

3. Group #3, although starting at the same level as Group #2, also began to show signs of differentiation, in that some individuals needed less help than did others.

It was at this point of primary observation that a shifting of students was needed and undertaken.

1. Most of the slower readers remained in the slowest Group #2.

2. Some of the faster readers from Group #2 were then moved to the faster or higher level Group #3.

3. The slower readers of Group #3 were moved back to Group #2.

4. Interestingly enough, Group #1 continued at their own fast pace neither gaining nor losing students.

5. As a result of this shifting of students, three distinct reading levels or groups were obtained, Group #1 being the best, Group #2 being the poorest, and Group #3 being the middle or average group.

It was observed at this point that Group #1 had now begun to read ahead, read extra stories, and even extra books. As their skill in language facility grew, 90% of them began writing book reports on their extra readings. This writing of reports on extra reading was true also of Group #3 but when group

sizes were considered, there were porportionately fewer reports from Group #3.

TABLE #1

Summary of extra reading reports at mid-point in unit.

- Group #1: (Fast group) - six students
 approx. 30 reports - (approx. five apiece).
- Group #2: (Slow group) - 12 students
 approx. 10 reports - (approx. one apiece).
- Group #3: (Middle group) - 10 students
 approx. 24 reports - (approx. 2½ apiece).

It was also found that Group #2 had relatively fewer reports, and along with a general overall slowness, began to lose interest in reading. At this point it became increasingly difficult to motivate this group while Groups #1 and #3 required very little motivation.

IV ADDITIONAL OBSERVATIONS:

1. A notable observation made while grouping students for reading was that; in cases where a student would tend to be in a poor reading group, they would tend, also, to be on the poorer end of the scale in almost all subjects, with the exception of just a few. This may possibly be explained as a result of a basic lack of comprehension stemming from an inability to read.
2. There was a slight social uneasiness attached to being in a poorer reading group. This is one of the problems in grouping which cannot be avoided regardless of how the problem is approached. However, the pupils in this particular slow group

seemed to find comfort in the fact that they were in a group which was pretty nearly alike in general reading ability. As a result of this comfort, it is felt that every student in the group was placed in a position more conducive to learning.

3. In the overall accomplishment of objectives, Group #1 starting at a level one full year ahead of Groups #2 and #3 proceeded to complete the basic text, workbook exercises and vocabulary which were outlined as the term's work. In addition Group #1 also completed the reading of two loan plan readers on an independent reading basis and turned in a total of 72 reports on extra readings. This was approximately seven reports per student. The assumption is made that this large number of reports was caused by allowing of students to proceed at their own rate of speed, unhampered by the slower readers.

4. Group #3, although not reaching the degree of skill and accomplishment of Group #1, accomplished possibly more than did Group #1, because Group #3 started at a level almost one full year behind Group #1. (The same level as Group #2). Group #3 turned in a total of 47 reports, which was an approximate average of four reports per student.

5. Group #3 had the widest range of reading ability. A division of this group into two more groups might have proven valuable had time not been so important a factor. Also, a possible lack of adequate time for planning on the part of the teacher might have arisen as a result of a further division of groups.

6. Group #2, the slowest of all three groups involved, was found to be not overly productive and possibly underproductive. Had they been left to proceed as a part of a larger more advanced class, it is conceivable that, they may have accomplished much less in the way of reading skills. It is assumed that as a part of a homogeneous group, these pupils maintained some small amount of progress. This, if it accomplished nothing else, prevented a possible regression. Group #2 completed approximately 80% of the material outlined as basic but did not, as did Group #3, advance into the next group's work. There appeared a decline in the proportional rate of individual reading done by Group #2 as evidenced by the 26 reports turned in. (Approximately two reports per student). This, when compared to an average of four reports apiece for Group #3 and seven reports apiece for Group #1, was very low.

TABLE #2

Reading Progress of 6th Grade Class 1959-60.

	<u>GROUP #1</u> Started one grade level ahead of Groups #2 and #3	<u>GROUP #2</u> Started at some level as Group #3	<u>GROUP #3</u> Started some level as Group #2
Number of Pupils	(6)	(13)	(11)
Work completed	(1)	(1)	(1)
A. Basic text	<u>Sixth grade level</u> <u>100%</u> complete	<u>Fifth grade level</u> , <u>80%</u> complete	<u>Fifth grade level</u> , <u>100%</u> complete (1) <u>Sixth grade level</u> , <u>25%</u> complete
B. Workbook	(1) <u>Sixth grade level</u> <u>100%</u> complete	(1) <u>Fifth grade level</u> , <u>80%</u> complete	(1) <u>Fifth grade level</u> , <u>100%</u> complete (1) <u>Sixth grade level</u> , <u>25%</u> complete
C. Loan plan reader for extra reading	(2) Sixth grade level	(1) Fifth grade level	(2) Fifth and Sixth grade level
D. <u>Total number of extra reading reports turned in</u>	(42)	(26)	(47)
E. <u>Average number of extra reading reports per pupil</u>	(7)	(2)	(4)

TABLE #3

Chart Showing Test Results for 6th Grade Class 1959-60.

STUDENT	READING		GENERAL ABILITY	
	IOWA	S.R.A.	HEN NEL	OTIS
	<u>PRE TEST</u>	<u>POST TEST</u>	<u>PRE TEST</u>	<u>POST TEST</u>
	<u>Grade level</u>	<u>Grade level</u>		
1.	7.1	11.0	C+	A-
2.	6.9	9.5	C+	B
3.	3.4	4.5	D	D
4.	4.5	7.3	C	B
5.	3.8	5.0	C	C
6.	3.3	absent	C-	C
7.	4.5	4.3	D	C
8.	5.7	7.3	C	C
9.	4.5	6.6	C	B
10.	absent	5.3	D	C
11.	5.3	10.2	C	C
12.	5.3	6.8	D	C
13.	4.4	4.5	D	absent
14.	4.1	5.0	C-	C
15.	3.7	4.5	D-	D
16.	3.3	absent	D-	absent
17.	4.7	6.0	D	D
18.	4.0	absent	C	D
19.	5.4	absent	C	C
20.	4.3	8.1	D	D
21.	2.5	4.8	D	absent
22.	3.8	5.8	D	D
23.	4.1	5.0	C-	C
24.	4.3	absent	D	D
25.	Late Entrant	Transferred	Late Entrant	Transferred
26.	4.0	4.5	D	D
27.	3.7	5.0	C-	C
28.	4.9	7.6	C-	C

Progressed - 20
 Regressed - 1
 Mean
 Achievement - 1.8
 No Change - 0
 Incomplete - 7
28

Progressed - 11
 Regressed - 1
 No Change - 12
 Incomplete - 4
28

It was noted that in most cases of reading testing, the pupils' reading level was increased by better than one whole grade level.

In the testing of general abilities it was noted that the number progressing was approximately equal to the number of those scoring, no change. In the case of progression, the increase in general ability was very slight in most cases.

SOCIAL STUDIES UNIT

"AFRICA"

I OBJECTIVES:

Group A - Objective, to discuss, do research, and report on the climate, the geography and the location of Africa in comparison with other countries.

Group B - Objective, to discuss, do research, and report on the people, the occupations, the products and the religions of Africa.

Group C - Objective, to discuss, do research, and report on the history, the wealth and the current status and events of Africa as a nation.

II PROCEDURE:

In grouping the children for this unit in Social Studies, a composite plan of grouping was used.

1. The children were grouped primarily according to interest in the different topics involved.

2. The children were next considered for certain groups on the basis of ability and need.

3. Lastly, children were grouped according to friendship patterns.

After each group was formed two rules were outlined to insure smooth operation.

1. Each group was allowed to choose a group chairman and co-chairman. This was done by the use of a group sociogram designed to determine which student was most capable for this job in the eyes of his classmates. It should be noted that considerable teacher influence was exerted at this point in determining who was best qualified. This was done only for the purpose of eliminating the factor of best friends being chosen.

2. Before group work was begun it was pointed out that the group chairman had the duties of coordinating his group's research, delegating special assignments, and sharing material found with the chairmen of the other two groups.

In beginning their group work, several steps were followed:

1. Each group in a general buzz session, discussed their major topic and objectives, and outlined them, with the help of the teacher.

2. After these discussions each group began to look for material with which their respective topics were concerned, and began to take notes on their findings. It was at this point that a great exchange of material took place between groups.

3. As each group discovered material pertaining to the topic of another group the chairmen of the groups exchanged the materials. It was through this type of interaction that the chil-

dren began to learn far more than they would have, had they just been handed the material to learn.

4. For their research the children were to use any material that they could find, bring into class, or report upon. Books, magazines, television, newspapers, and even souvenirs were used as sources.

5. Daily and periodic discussion sessions were scheduled in which group progress was evaluated by the children. These sessions served as an excellent method of review, and even better, as a motivational device. In these sessions it was observed that the children were possibly more critical of themselves than the teacher would have been under similar circumstances.

6. Aside from general buzz sessions, research, and reading periods, there were experiences in oral reading and discussion with a general class text. In conjunction, homework consisting of several questions to be answered as checking up questions, was assigned. This work was given primarily as a supplemental activity to the basic group work. Previously it had been used as the basic activity with group work serving as the supplemental activity.

III OBSERVATIONS:

In the discussion of the accomplishment of objectives, it should be stated that an assessment of the experience and knowledge gained through the working together of individuals cannot be based to any great degree upon the final report or end pro-

duct obtained. Accomplishment should be measured in terms of what a group or class as individuals have contributed. A test upon the material covered did not seem to be an appropriate method of evaluation, an individual evaluation of what each person contributed to the accomplishment of major group objectives seemed to be more in order. This was based on the theory that a person's contribution to a group project, will just about equal the benefits received from the project, thus he may be evaluated and graded accordingly and with a fair degree of reliability. A teacher's judgment based upon the analysis of careful observations seems to be the best method of evaluation. This may possibly be supplemented by general quizzes on any material read and discussed as being basic to the unit. This procedure was followed, and assigned grades accordingly.

It was not the purpose of this unit to determine whether group "A" learned more about it's topic (of Africa) than did groups "B" or "C", or whether group "B" learned more about it's topic than did groups "C" or "A", and so forth. The primary purpose of this unit, was that groups "A", "B", and "C", while doing research and discussing their topics, share their findings with the class as a whole. The reasoning underlying this primary purpose was that in this manner the material to be studied could thus be systematically distributed, researched, and reported upon in the most efficient and thorough manner possible.

SCIENCE UNIT"ANIMALS"I OBJECTIVES:

Group X - Objective, to discuss, do research, and report on the different types of animals.

Group Y - Objective, to discuss, do research on, and report on the different habits of animals (both eating and living).

Group Z - Objective, to discuss, do research on, and report on the different uses of animals to man.

II PROCEDURE:

In grouping the children for this Science Unit on "Animals" the children were again divided as before in the Social Studies experiment, on the basis of:

1. Interest in a specific topic.
2. Ability and need.
3. Friendship patterns.

Again, as before, group chairmen were chosen. This time choices were made on the basis of teacher influence rather than on a basis of sociometric choices by classmates. In choosing chairmen on this basis it was found that ability rather than social popularity was used by the children as criteria for selection.

In beginning their work in groups the class decided that several things were important in the study of animals:

1. Types of animals.
2. Habits of animals.
3. Uses of animals.

It was then agreed that each group would take one of these topics and present to the other two groups, in the form of a group report, all the material and information which they could obtain upon their choice of subjects. The following is a brief outline of the procedure that was then followed by each group:

1. Each group met individually, with the teacher, in a general buzz session to determine the content of their group presentation. At this point the children were encouraged to share any information that they encountered which might be of value to another group.

2. Sharing of information was handled through the chairmen and co-chairmen. This served as a functional way for each group to acquire information from a source that previously might only have been used by one person. This also served as a means of keeping children alert to other topics or phases of the basic unit, rather than to just one phase.

3. As sources of material for research, it was agreed that any material that could be found, which would make their report interesting as well as factual would be acceptable. This arrangement proved quite satisfactory, in that our class had no complete set of science textbooks, but several copies of different text.

4. As basic material, each student made an outline to follow

which was compiled by the members of his group. This outline consisted chiefly of a list of acceptable materials from which information could be obtained.

5. Periodic discussion sessions were held with each group and occasionally with the class as a whole. The purpose of these discussion sessions was to evaluate progress made by each group and the class as a whole.

6. Aside from research and discussion sessions, basic silent and oral readings were assigned to supplement group activity. For this purpose it was necessary to borrow sets of text books from other teachers to supplement our own "part sets."

7. As an outgrowth of the reading and discussion sessions, a basic class outline, was prepared, covering the unit content. This outline served not only as a record of summaries of group reports, but as a basis for further discussion and expansion into a major class report.

III OBSERVATIONS AND EVALUATION:

In the evaluation of the accomplishment of objectives of this unit, the general knowledge and experiences gained through this type of group work cannot be measured to any great degree by how much a child can memorize from what he has found. The evaluation must come from the teacher's observations and be dependent upon how well each child can apply ideas and associate his newly found facts with the basic concepts he is discussing.

In the evaluation of this unit three factors of special significance were noted.

1. Each group, in giving its final report, seemed to show an excellent command of material, discussing and answering questions readily.

2. Each student seemed to share in the presentation of material and in the clarification of questions. It was on this basis that a partial individual evaluation was made. The remainder of the evaluation was taken from daily discussions, observations and general group work attitudes.

3. Each child was severely criticized by his fellow group members when he was not doing his share of the work. This left little in the way of discipline or supervision for the teacher.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
FOR FURTHER RESEARCH

I LABORATORY PROJECT:

In evaluation of the experiment in reading it was noted that when grouping students for reading:

1. Separate and explicit objectives must be set for each different group used.
2. Each group must be divided according to overall general ability relying primarily, and heavily, at first, upon past records and tests.
3. The grouping must be both temporary and flexible. This tends to free each student to proceed at his own pace and not be slowed down by other slower readers.
4. Lastly, grouping although valuable as an individualized type of instruction definitely takes more of a teacher's school day. The purpose of this type of instruction can reach a point of diminishing returns when there are not enough hours in a teaching day to adequately plan and teach by the grouping method. This shortage of time will necessitate the reducing the time devoted to other necessary teaching plans.

II SOCIAL STUDIES EXPERIMENT:

When compared with the more traditional method of teaching Social Studies whereby the material is merely presented, to the

entire class, discussed and tested for, grouping has a distinct advantage. Grouping is not limited to material outlined in a single text book or source of material. In group study a variety of materials can be advantageously utilized. As a result of this utilization of varied materials the students tend to be better informed. They become more highly critical and even unwilling to accept any single source of material as a final authority on any question. A lack of this critical thinking and information is one of the more serious problems facing our world today. This grouping also brought about a search by each member for new and different ideas pertaining to the subject, and a great deal of use of a variety of visual aids in their reports.

III SCIENCE EXPERIMENT:

In evaluation of the experiment involving grouping for the teaching of Science, it was noted that the pre-set objectives were met to a very high degree. It was not the purpose of this experiment to separate the children to determine which group X, Y, or Z, learned more, but to group them into more homogeneous closer sharing and working groups. These groups did work well together and shared any material which they encountered in their problem-solving research. Another pre-set purpose of this experiment was to orient the children into an excellent method of systematic study and pursuance of a problem (in this case the types, habits, and uses of animals). This systematic approach served as an excellent basis for further and more de-

tailed study on an individual basis. It cannot be debated here that one of the prime objectives of education is to motivate and train for individual study.

SUMMARY

In summary: Grouping and group evaluation are of value in the search for better and more effective methods of teaching in elementary education because:

1. It is not merely organized activity or play to group children. Through the group processes responsibilities are delegated, more information may be gathered, individual wants and needs can be better met, and a direct result learning is more personalized, challenging and direct.
2. Through the group processes individual members tend to have a greater interest in the common problem. They tend to use a greater source of materials in seeking information applicable to their topic yet different. Lastly, they tend to be more natural in their responses thus giving the teacher a more accurate picture of their general ability.
3. Through the group processes the teacher will play less the role of information giver and assume more a role of resource person and group member.

CONCLUSION

In conclusion: The matter of grouping, as America's educational system begins the 1960's, continues to be characterized by three major problems.

1. Problems of terminology including that which is over-

lapping as well as conflicting.

2. Insufficient comprehensive research data and conflicting data.

3. Appreciable differences in both practice and opinion.

The best grouping procedures it seems reasonable to conclude, are likely to differ from one school to another, the most desirable ones being dependent upon such factors as:

1. Competence and maturity of the local staff.
2. Nature of the physical plant.
3. School size.
4. Class.
5. Design of local curriculum and instruction.
6. Willingness on the part of teachers and administrators to make the plan work.

Finally, of extreme importance to we as teachers, the philosophy and ability of the able teacher are undoubtedly more important than any grouping plan in itself, however, ingenuous it may be, with respect to creating a good environment for teaching and learning.

In answering the major hypothesis of this paper it is maintained that there is sufficient professional literature relevant to guidance in the use of grouping as a means of organization for instruction. Moreover the material investigated, and the project conducted, tend to give credance to the idea that grouping does serve a very fundamental need on the part of both children and teachers. This need is that of a more indi-

vidualized type of instruction.

In further research on this problem of grouping and the evaluation of groups in education, it is suggested that:

1. A longer term and more detailed laboratory project be conducted. This project would not be limited to only one group of children but would present a cross section of several different classes, and over a period of several years.

2. The expansion of this research problem might also include the use of a control group which would be selected, tested, and evaluated, on exactly the same basis, the only variation would be in the manner in which it is instructed.

3. Testing, if possible, be done to both the experimental and the control group, at a much later date, possibly 2-3 years later. This post experimental test would be primarily for the purpose of testing long term retention.

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MISCELLANEOUS

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