

Grouping Students in Junior High School

. . . an evaluation of practice.

CRIES for improved education that were heard recently throughout the United States were heard also in Kalamazoo. Grouping arrangements, prescribed as a cure for educational ills in other places, also were tried in Kalamazoo.

During the spring of 1959, a committee was established with instructions to recommend a plan for grouping junior high school students. The committee's recommendation that a "flexible grouping" program be established was adopted by the Board of Education and put into practice in September 1959.

The flexible grouping program used in Kalamazoo may be described as follows:

1. The purpose of grouping would be to provide for individual differences among all students, not for the sole purpose of providing a program for gifted students.

2. Three group levels would be established in English and mathematics and two group levels in science.

3. Seventh grade students would be grouped in English and mathematics; eighth grade students in English, mathematics and science; and ninth grade students in English and science.

4. Broad and varied criteria would be used in the placement of students. Among

these criteria would be intelligence test scores, achievement test scores and teachers' judgments regarding interest, motivation and need.

5. Flexibility in placement would be promoted by using total needs of students rather than a rigid criteria alone in determining the placement of students.

6. Students could be placed at one group level in one subject and at a different group level in another subject.

7. If the students' needs change during the year, students could be shifted from one group level to another.

8. Approximately 20 percent of the students would be in the more capable group, 60 percent would be in the average group and 20 percent would be in the less capable group.

9. The curriculum, materials, and teaching procedure would be different for and adapted to each group level.

10. A thorough and continuous evaluation of the grouping program would be undertaken.

As plans were being made to initiate the grouping program, plans were also being made to evaluate it. The plan of

John R. Cochran is Coordinator of Secondary Education, Public Schools, Kalamazoo, Michigan.

evaluation provided for four major studies during the first year; one related to teachers, one related to parents, one related to achievement test scores, and one related to the changes made in the placement of students.

Teachers and Grouping

Questionnaires were administered to all 144 of the junior high school teachers approximately six months after flexible grouping had been in operation. Ninety-six percent of the questionnaires were completed and returned.

Sixty-five percent of the teachers who were teaching grouped classes reported that they approved of grouping when it was first discussed. The percentage of those approving of grouping increased to 77 percent after the program had operated for six months. When the teachers of grouped classes were asked if they believed that there should be grouping, 86 percent reported, "Yes." Similar responses were given by teachers not assigned to grouped classes.

The comments of teachers clarified their reasons for believing that grouping should be continued. Typical comments were, "It is easier to teach." "It is a more effective manner of teaching." "All students have a chance to succeed." "Less able students feel more secure." "There is more challenge for the able students." Whether or not these comments were valid is questionable and to some degree immaterial. The important fact was that teachers believed them to be true and undoubtedly acted in terms of their beliefs.

Although the majority of teachers approved of grouping, they were not at all sure that grouping was of value to students. Increased achievement and interest were reported by teachers of more

capable groups and teachers of seventh grade students, regardless of group level. Teachers of all other groups felt that neither achievement nor interest had markedly improved. Some of the teachers of more capable groups felt that students' attitudes toward themselves had improved, but a majority of teachers did not share that feeling. There was general agreement that grouping did little to improve the behavior of students or to improve students' attitudes toward others. Most teachers reported some improvement in their relationship with parents as a result of grouping.

Certainly these data were inconclusive and showed a need for more objective study. These reactions, however, suggested that efforts should be directed toward helping students develop reasonable attitudes toward both themselves and others regardless of group level.

While grouping did not greatly change students, it did seem to influence the procedures used by teachers. Nearly all teachers of less capable groups and many teachers of more capable groups reported that they had changed their teaching to a great extent, while teachers of average groups reported little change in their teaching. Major changes which took place were related to the use of a greater variety of printed materials and to the use of more audio-visual materials. In addition, increased use of community resources and of teacher-pupil planning was reported by teachers of more capable groups.

This major curriculum change seemed to lessen teachers' faith in their past practices. They worked diligently to find better materials and methods and to learn more about their students. Whether or not they will continue to search for new and better ideas is not known.

Relatively few of the teachers felt that they had been specifically prepared for teaching grouped classes. However, only the teachers of less capable groups seemed to be disturbed by this fact. Teachers of the less capable groups consistently reported that they felt inadequate. Their concern was reflected by the fact that only 47 percent of the teachers of less capable groups felt satisfied with their present assignments as compared with 96 percent of teachers of more capable groups who were satisfied with their assignments. Further, while 74 percent of all teachers desired future assignments with more capable groups, only 6 percent wished to have assignments with less capable groups. Finally, the only teachers who questioned the adequacy of materials, supplies, curriculum help, or in-service training, were teachers of less capable students.

For some teachers, being placed in charge of junior high school students who were below average in intelligence, below grade level in achievement and above normal in frustrations and in discipline problems was a frightening task. This strongly suggested that the assignment of teachers to less capable groups should be made with care, that class sizes should be reduced, that in-service training and every possible type of support should be provided.

Reactions of Parents

Two questionnaire studies were made involving the parents of junior high school students. The first questionnaire did not mention flexible grouping but was concerned with determining parents' judgments as to their children's attitudes toward school. The questionnaire was administered so that the returns could

be tabulated by grade and group level. Two schools were included in the study and 958, or 64 percent, of the questionnaires were returned.

Parents reported that the interest of their children in English, reading, mathematics and science had increased during this year as compared with the past year. For some group and grade levels, as many as 70 percent of the parents reported an increase in interest. However, they also reported a high increase of interest in social studies, for which classes were not grouped. Further, regardless of subject or group level, a consistently high increase in interest was reported for seventh grade students. Although the data tended to support a belief that an increase in interest resulted from grouping, it appeared that additional data needed to be gathered to determine the degree to which other factors, such as a new school situation, influenced the results.

Many parents reported that their children had enjoyed more success in school this year. With the exception of eighth grade science, the percentage of parents reporting increased success was higher for the less capable groups than for the other groups. An improved attitude toward school was also consistently reported by the parents of less capable students. On the other hand, these same parents tended to hold that standards were too low and that too little homework was given. This evidence suggested that the provision of a different curriculum with different materials has increased the success and improved the attitude toward school of the less capable student. However, continued review of standards and homework and interpretation of program to parents seemed to be desirable.

A second study was made by send-

ing a questionnaire to all parents of junior high school students. This questionnaire was aimed at determining the degree to which parents approved of the idea of grouping. Questionnaires were returned by 1637 parents or approximately 50 percent of the population.

In reacting to three separate questions, 82 percent of the parents believed that students should be grouped according to ability, 64 percent believed they should be grouped according to interest and 68 percent believed they should be grouped according to achievement. At least 71 percent of the parents felt that grouping would create more interest in school, would foster desirable conduct, would improve the attitudes of students, would help them have increased success in school and would permit teachers to make school more challenging. However, only 53 percent of the parents believed students should be moved from one group level to another during the year. It was clear that a majority of these parents approved of grouping and believed that it would be helpful to their children.

Changing the Group Level

Need for a special study of the re-assignment of students to different group levels seemed to be indicated. Counselors, who handled all group changes, were asked to provide data about all students who were referred to them for changes.

An analysis of the data indicated that, although the initial placement of students was quite accurate, teachers constantly evaluated the placement of students and recommended changes throughout the year. A majority of requests for change came from teachers and were for the English classes or for seventh grade students. Changes were recommended

throughout the year but especially at the times that report cards were sent out. Sixty-five percent of all changes were from lower group levels to higher group levels. Inadequate or conflicting data were used in the initial placement of most students who were later changed.

Approximately 70 percent of all changes from one group level to another were judged to be successful and only 5 percent were judged to be failures. Both changes to a higher group or changes to a lower group met with equal success. While it was possible to make changes with success throughout the year, November or December seemed to be the best time.

Achievement Test Studies

The possibility of establishing a well defined and carefully controlled achievement test study was negated by the fact that all students had been placed in grouped classes. Consequently, while the method of study devised made it possible to decrease the effect of most extraneous factors, it was not possible to eliminate all of these.

The study can be described as follows. The control group entered the seventh grade during the 1957-58 school year, went through the seventh and eighth grades without being grouped, and was given an achievement test at the end of the eighth grade. The experimental group entered seventh grade during the 1958-59 school year, went through the seventh grade without being grouped, went through the eighth grade in the flexible grouping program and was given an achievement test at the end of the eighth grade. Students in the two groups had been paired on the basis of sex, chronological age, sixth grade achievement test scores and

intelligence. The major difference in the experiences of students was one year of grouping for the experimental group. It was assumed that any significant difference in achievement at the end of the eighth grade could be attributed to the grouping in the eighth grade.

About 10 percent of the total school population was selected for the experimental group by a random sample technique. The control group was selected by pairing students with those selected for the experimental group.

Test data were analyzed, as to subject area, group level and each subtest of the achievement test. In English, spelling, paragraph meaning, word meaning and language subtests were analyzed for the more capable group, for the average group and for the less capable group. In mathematics, arithmetic reasoning and arithmetic computation subtests were analyzed for each of the three group levels. In science, paragraph meaning and arithmetic reasoning subtests were analyzed for each of two group levels. A total of 22 different comparisons of the data were made.

The significance of the difference between the scores obtained by the experimental and control group was investigated by using Fisher's "t." In only 3 of the 22 comparisons were significant differences found. In the more capable English group, the experimental group achieved scores that were significantly higher than the control group at the 5 percent level on the spelling subtest. In the more capable mathematics group, the experimental group achieved significantly higher scores than the control group at 1 percent level of significance on the arithmetic computation subtest and at a 5 percent level of significance on the arithmetic reasoning subtest.

Although the differences were not significant, the experimental classes scored higher on 10 other occasions and the control group scored higher on 9 occasions. It was interesting to note that in every test in English and arithmetic, the control group for less capable students outscored the experimental group for less capable students. It is also interesting to note that in science, the experimental group achieved higher scores than the control group regardless of test or group level.

This data tended to bear out the results of many other studies—that grouping increased achievement but not to any significant degree. On the other hand, this study did not support those studies which suggested that greatest achievement takes place in groups of less capable students.

Parents expressed a belief that assignment to any group level other than the one for more capable students tended to legislate against high achievement. In reality, data showed that 33 percent of the students in the average group in English scored higher than the mean score for the more capable group on the paragraph meaning test and 10 percent of the students in the less capable group scored higher than the mean score for the average group. In mathematics, 5 percent of the average group scored higher than the mean score for the more capable group on the arithmetic reasoning test. While none of the students in the less capable group scored higher than the mean score for the average group, 40 percent of the less capable students scored higher than lowest score in the average group. It is clear that assignment to a group level neither insured nor excluded high achievement.

Since one of the purposes of the flexible grouping program was to make it

possible to provide more adequately for individual differences, it seemed desirable to determine the degree to which individual differences were reduced. On the paragraph meaning test, the range of scores for all students at the end of the year extended over 9.2 years. For the more capable groups, the scores extended over 5.3 years; for the average groups, they extended over 7.6 years and for the less capable groups, the scores extended over 7.1 years. On the arithmetic reasoning test, the range of scores for all students at the end of the year extended over 8.2 years. For the more capable groups, the scores extended over 3.7 years; for the average groups, they extended over 6.8 years and for the less capable groups, the scores extended over 3.7 years. At the beginning of the year, the range of scores for any one group level did not exceed 3.2 years for either the arithmetic reasoning test or the paragraph meaning test. It is obvious that, while differences were reduced distinctly at the beginning of the year, the range of differences increased throughout the year.

The results of this study can be summarized simply. First, parents felt that flexible grouping helped their children and they approved the program. Second, teachers believed that flexible grouping did not make much difference, but they approved the program. Third, flexible grouping *did not* make much difference! As has been said about other studies, more issues were raised than settled.

Certainly no findings of national import or clear-cut bases for accepting or discarding the program appeared. However, the results of some studies and the comments made by participants suggested many things that might be done to improve the current program. Further effort needed to be made to reduce

**Research Helps in Teaching the
Language Arts**

\$1.00

**Foreign Language Teaching
in Elementary Schools**

\$1.00

Order from:

ASCD, NEA, 1201 16th St., N.W.
Washington 6, D.C.

the pupil-teacher ratio in groups of less capable students, to avoid increasing the number of different group levels assigned to a teacher and to continue to assign students to groups carefully and individually. Attempts to provide materials, curriculum and teaching procedures in keeping with the needs of each group must be increased.

Continued emphasis should be placed on maintaining and increasing flexibility in the assignment of students to groups. Direct efforts should be aimed at helping less capable students feel worthwhile as individuals and at helping more capable students respect the worth of all individuals. A need to provide in-service experiences to help teachers increase their skill in working with less capable students, increase their skill in teaching reading and increase their skill in providing for individual differences was indicated. Finally, the study should be used as a basis for widespread local discussion to clarify the issues involved in grouping and to encourage further research.

Copyright © 1961 by the Association for Supervision and Curriculum Development. All rights reserved.