A STUDY OF THE VALUE OF MULTIAGE GROUPING IN THE ELEMENTARY SCHOOL

BY

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A STUDY OF THE VALUE OF MULTIAGE GROUPING IN THE ELEMENTARY SCHOOL

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I am submitting herewith a Research Paper written by Janet Colley Dinges entitled "A Study of the Value of Multiage Grouping in the Elementary School." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts in Education, with a major in Guidance and Counseling.

Blan

Major Professor

Accepted for the Council: the Graduate School Dean of

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CHAPTER I

INTRODUCTION

The cardinal tenet of American education is to provide a comprehensive education for all children. The increasing birth rate and the widespread acceptance of the school's role have made this challenge a formidable one in the conventional elementary schools in America. Educators have recognized for some time that the graded elementary school fails to meet the educational needs of the wide variety of children found in the typical elementary classroom (Thomas and Crescimbini, 1967).

In the early days of elementary education in America, multiage grouping was a necessity. The one-room schoolhouse enclosed a multiage group. For years, Americans traditionally have looked back with nostalgia to the one-room schoolhouse, forgetting its physical shortcomings while remembering the variety of rich, close contacts with others that it offered.

Now, more than a century later, educators are once more getting excited about that pattern of classroom organization. They see this kind of class organization as a way to provide unity of experiences for the child, combat age-isolation, and create integration (NEA, 1968).

Traditional education, with a curriculum planned for the middle third of the class, does not challenge the gifted student, frustrates the slower student, and frequently offers nothing significant to the so-called "average" child. Multiage grouping does not solve all of education's problems. But multiage grouping does have many built-in advantages over traditional grouping patterns (NEA, 1968).

STATEMENT OF THE PROBLEM

The major purpose of this study was to determine whether multiage grouping provides a realistic alternative to the age-graded, selfcontained classroom and the traditional form of organization that makes children adapt to the system instead of adapting the system to meet the needs of each individual child.

To achieve this purpose, the following specific question was considered in this study: Do children achieve as well in a multiage class?

PURPOSE OF THE STUDY

The purpose of the study was to provide information about a new concept in school organization. This information should provide school administrators and officials with an overview of the current approaches and may help provide the basis for establishing guidelines in the development or revision of school organizational patterns.

Perusal of this study should enable the elementary education student to gain some insight into the area of multiage grouping in the elementary school and an understanding of the objectives of this type organization.

LIMITATIONS

The following limitations were placed upon the sample to represent the population of the third grade classes at Lincoln Elementary and Millbrooke Elementary Schools:

- The study was limited to only third year students at Lincoln Elementary and Millbrooke Elementary.
- It was limited by having only reading and math scores from the Comprehensive Tests of Basic Skills available on each student.

DEFINITION OF TERMS

<u>Multiage Grouping</u> - The type of organization that embraces agespan and that places approximately the same number of pupils from grades one, two and three or from grades four, five and six in the same classroom.

<u>Traditional Grouping</u> - This study defines traditional grouping as the age-graded, self-contained classroom concept.

<u>Vertical Grouping</u> - That method of organization in which individuals of different ages are placed together in the same class.

Family Grouping - Each class, like a family, contains children of different ages.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

The trend towards children's learning as individuals or in small groups, rather than being taught as a class, has made it easier for teachers to provide assistance for children of different ages in the same class. This has always been a feature of small country schools and, until recently, has been thought of as a difficulty they have to contend with. However, there are now seen to be some advantages in classes which embrace age-span. Sometimes the term family grouping is used, since each class like a family, contains children of different ages, and is felt to be a natural and happy situation (Palmer, 1971).

The use of the integrated approach coupled with vertical grouping (that method of organization in which individuals of different ages are placed together in the same class), ensures heterogeneity and expands opportunities for freedom of choice, flexibility, facilitation of physical, intellectual, emotional and social development and individualization of instruction. Furthermore, progressive and personalization of learning experiences are enhanced through this type of school organization (Wheeler, 1973).

Evidence shows that a multiage approach in organization is productive of better work attitudes, of higher levels of aspiration, and of less discouragement in failure.

The dominant thrust in attempting to improve American education over the past several years has been individualizing of instruction. 5

Every teacher recognizes that a class of twenty-five children, though all of about the same age, can differ dramatically in their abilities, their interest in one subject rather than another, and their preference for one form of instruction over others.

In a study conducted by Nelson (1972), he found the following statements to be true about students having been involved with multiage grouping:

- 1. Pupils exhibit more positive learning attitudes than do pupils in traditionally organized schools.
- 2. Pupils generally appear to have a more positive self-concept as learners.
- 3. Pupils display a more positive attitude toward their fellow pupils, toward instruction, toward school in general and toward their community.

Estes (1973) states that grouping as an organizational plan eliminates labels, promotes continuous progress, and permits the utilization of meaningful individualized instruction. Grouping is a convenient way to provide for individual differences, enhance the effectiveness of the teachers, and to ensure quality learning experiences for children.

Under the grade standard concept each pupil is expected to master the skills and content outlined without too much consideration for his past experiences or intellectual capacity. A common complaint is made that we need to return to the good old days when pupils would have repeated a grade until they were ready to do the work of the next grade (Thomas and Crescimbini, 1967).

Sorting pupils into grades was a revolutionary step in educational

circles, but early educators failed to see the unique features of children. All children were considered alike in capacity. Pupils who failed to make progress were essentially failures because they would not behave or follow directions. There was little recognition of the need to vary the rate or method of instruction for individual pupils (Thomas and Crescimbini, 1967).

Multigrade and multiage grouping is designed to reduce the regimentation that has characterized the graded elementary school. This plan of organization is based on the assumption that groups should be formed using the differences rather than the similarities of children. Approximately the same number of pupils from grades one, two and three or from grades four, five and six are placed in the same classroom (Miller, 1971). Children learn from those who are different as well as from those who are similar to them. Individualized instruction is used since it is not possible for a teacher of a multiage classroom to set a common goal for every pupil.

In multiage settings teachers are more likely to work with individuals or small groups, allow more peer interaction, have less need to direct pupil behavior, use more supplementary materials, and respond to individuals more frequently (Pavan, 1973).

Multiage grouping provides opportunity for the brighter child to achieve in keeping with his potential. Slower students have an opportunity to achieve at their own rate (Estes, 1973). Another advantage to multiage grouping is the greater possibility of disguising the fact that a child spends an extra year in a particular unit. This gives him the experience of being in a room where there are boys and girls of different ages and where the situation is viewed as a normal procedure (Tewksbury, 1967).

In single-age rooms, the more able boys and girls are generally at the top of their class. Success comes easily and many leadership roles fall to them. In multiage classrooms, these children might experience a year or two where leadership did not fall so quickly to them, for they could be assigned so that they were the younger children in a classroom of two age levels. Similar alternative placement exists for pupils who in a single-age classroom would normally be at the bottom of the class year after year.

There are other advantages for multiage classrooms:

(1) At the beginning of the year, the older children are more familiar with instructional procedures than are the younger ones. Therefore, less teacher time is needed to start the class and teach appropriate classroom behavior, and there is more time to devote to the younger children who need the most help.

(2) The younger children, learning from their older associates, seem to develop more independent study habits and more self reliance earlier than is the case in a single-age classroom.

(3) The older children gain social maturity from their experience of providing leadership for the younger boys and girls.

(4) Leadership qualities can sometimes be fostered in a shy child, because he can gain confidence by associating with some of the younger pupils in the room. (5) Stereotyping of students can be reduced. For example the tallest, shortest, fastest, slowest, or fattest does not necessarily remain in this position year after year. In his first year in the classroom, a child may be the smallest, but by the next year there may be younger "newcomers" who are smaller. The same is true in arithmetic or any other subject. The first year he may be working at a lower level relative to others in the class, but by the second year some of the newcomers would be at levels lower than he (Tewksbury, 1967).

(6) It attempts to provide a program of continuous and sequential learning experiences. Children gain confidence and satisfaction from success at each learning level.

(7) There is greater flexibility of movement within and between classes. Pupils can be transferred to higher or lower levels during the school year without having a major adjustment problem.

Mitchell and Zoffness (1971) found that in a multiage class they set up, the students favored this type of arrangement. They also reported that on academic evaluation the multiage class gained in almost every area tested as opposed to the self-contained class as measured by the Stanford Achievement Tests.

One of the essential characteristics in assuring that a multiage type organization will work is the attitude on the part of the teachers involved in the process. When teachers possess the philosophical dimensions which reflect acceptance of the child's human worth and dignity, have an appreciation and recognition of individual differences, realize that learning occurs through experience, through positive reinforcement, and through motivation, and when teachers can truly understand that when children have some stake in deciding when and where they will learn, as well as what and how, opportunities for sustained effort and concentration are enhanced (Wheeler, 1973).

CHAPTER III

HYPOTHESIS

The multiage class organization plan is thought to have as many advantages as the self-contained class.

The subjects covered were those in third grade at Lincoln Elementary and Millbrooke Elementary.

The null hypothesis to be tested is as follows:

There is no significant difference between scores of a multiage class and a self-contained class on the Comprehensive Tests of Basic Skills.

DESCRIPTION OF THE SUBJECTS

<u>Third Grade Students</u>: These students were students enrolled in third grade at Lincoln Elementary and Millbrooke Elementary Schools. They consisted of girls and boys, of white and black, of military and non-military, and of a cross section of ability and academic achievement.

The students were chosen because of their availability, and they were chosen by selection of teachers as to their ability to perform.

After receiving permission from the principal, these students were asked to take the Comprehensive Tests of Basic Skills. The students were administered the test in accordance with the procedures specified in the examiner's manual.

DESCRIPTION OF THE INSTRUMENT

The Comprehensive Tests of Basic Skills, Expanded Edition is a series of batteries for kindergarten through Grade 12. The batteries comprise seven overlapping levels. The tests are designed to measure systematically those skills prerequisite to studying and learning in subject matter courses. The tests are intended for national use, by students who have been taught according to various approaches. Test items should be answered as readily by students taught according to a traditional approach as by those who are taught according to any of the newer approaches.

The partial battery containing Reading, Language, Mathematics and Reference Skills tests were used for the purpose of this study.

Level 1 (2.5-4.9) was administered to all third grade students performing on grade level. Level C (1.6-2.9) was administered to all third grade students performing below grade level. The tests were hand scored.

CHAPTER IV

TREATMENT OF DATA

The purpose of this study was to determine whether students achieve as well in a multiage class as in a self-contained class.

The null hypothesis was tested at the five percent level of significance. Separate t-tests were computed for students assigned to instruction on grade level in reading and math and also for students assigned to instruction below expected grade level in reading and math.

The t-test computed for students assigned to instruction on grade level in reading was highly significant. The mean for the self-contained group, consisting of 70 students, was 6.84. The mean for the multiage group (N = 35) was an average of 5.69. The computed t was 4.26, p \lt .05. Thus, the null hypothesis was rejected.

The t-test computed for students assigned instruction on grade level in math was also highly significant. The mean for the self-contained group was 6.74, while the mean for the multiage group was 5.28. The computed t was 4.87, p < .05. Again, the null hypothesis was rejected.

The t-test calculated for students assigned to instruction below expected grade level in reading was also significant. The mean for the self-contained group, consisting of 42 students, was 5.17. The mean for the multiage group (N = 54) was an average of 4.28. The computed t was 2.85, p<.05. The null hypothesis was rejected.

The t-test calculated for students assigned to instruction below expected grade level in math was not significant. The mean for the self-contained group was 5.85 and the mean for the multiage group was 5.52. The computed t was 1.13, p > .05. Thus, the null hypothesis was supported.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

This study was done in order to see if students achieve more in a multiage setting as opposed to a self-contained, age-grade setting. It was originally assumed there would be a significant difference between the students in a multiage setting and their achievement and students in a traditional setting and their achievement.

In connection with this survey a t-test was used for purposes of evaluating the degree of significance that exists between student achievement in a multiage classroom and in a self-contained classroom.

The third grade classes at Lincoln Elementary, Fort Campbell and Millbrooke Elementary, Hopkinsville were selected for this study.

The Comprehensive Tests of Basic Skills was used as the instrument for assessing the achievement of the two groups.

The null hypothesis was rejected and it was concluded that in this particular study there was a significant difference in the achievement of the students in the multiage class and the self-contained class.

CONCLUSIONS

The null hypothesis, "There is no significant difference between scores of students in a multiage class and students in a self-contained class," was not supported. It was concluded that students from a selfcontained class achieved more in the areas of reading and math when assigned to a level of instruction on or below grade standard, than students from a multiage class.

Although we failed to determine students achieve more in a multiage setting, there may have been other factors contributing to their lowered scores and the outcome of this study. The students in third grade from Lincoln probably come from a lower socioeconomic background than the students from Millbrooke. The students from Millbrooke are from a more stable population and are tested each year on their academic achievement; whereas, the students from Lincoln are more transient, most have not been exposed to a multiage setting before, and those that have have not been familiar with taking achievement tests.

In conclusion, multiage grouping does not attempt to solve all of education's problems; however, it has many advantages. We, as educators, need to recognize and appreciate individual differences and provide for the unique features of all children.

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RECOMMENDATIONS

It is recommended that since there may have been many other factors contributing to the outcome of this particular study, there is a need to determine how these factors contribute to the outcome of test results when using the multiage class and the self-contained class.

There is also a need to determine attitudes and self-concept of the two groups.

It is further recommended that other schools and grade levels using these two organizational patterns be tested.

BIBLIOGRAPHY

- Estes, G. L. Grouping Should Not Label Children. School and Community, 1973, 59, 5.
- Miller, Wilma H. Some Less Commonly Used Forms of Grouping. <u>Elementary</u>
- Mitchell, Joy and Zoffness, Richard. Elementary Pupils Favor A Multiage Class. Education, 1971, 91, 270-273.
- National School Public Relations Association. Individually Guided Education and the Multiunit School. 1972.
- NEA of the United States, Department of Elementary Education, <u>Nongraded</u> Schools. 1968.
- Nelson, Richard G., "An Analysis of the Relationships of the Multiunit School Organizational Structure and Individually Guided Education to the Learning Climate of Pupils," Technical Report No. 213.
- Palmer, Richard. Space, Time and Grouping. New York: Citation Press, 1971.
- Pavan, Barbara N. Good News: Research on the Nongraded Elementary School. Elementary School Journal, 1973, 73, 333-342.
- Tewksbury, John L. Nongrading in the Elementary School. Columbus, Ohio: Charles E. Merrill, 1967.
- Thomas, George I. and Crescimbeni, Joseph. Individualizing Instruction in the Elementary School. New York: Random House, 1967.
- Wheeler, Alan H. Structuring for Open Education. Educational Leadership, 1973, 31, 250-254.