

DOCUMENT RESUME

ED 116 344

EA 007 831

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 TITLE Do School Organizational Patterns Make a Difference?  
 PUB DATE 75  
 NOTE 12p.  
 EDRS PRICE MF-\$0.76 HC-\$4.58 Plus Postage  
 DESCRIPTORS \*Academic Achievement; \*Cocurricular Activities; Elementary Secondary Education; \*Grade Organization; \*Instructional Program Divisions; Organization; Schools; Social Adjustment; Socioeconomic Influences; \*Socioeconomic Status

ABSTRACT

In order to determine the effect of school organizational patterns on learning and school adjustment, the author conducted a study that compared twelfth-grade students who attended self-contained schools on a K-8 pattern with students who attended self-contained schools on a K-3, 4-6 plan and then a 7-8 departmentalized school. All the students attended the ninth grade in one school and then went to one that used a 10-12 pattern. The results showed that (1) achievement as measured by grade point average was not statistically significant on the T-test at the .05 level; (2) there were few differences in the students' perception of school experiences and those that were found were more related to socioeconomic status and sex rather than to trends that could be attributable to previous school organizational structure; (3) there was no meaningful difference between the students in stability of socioeconomic aspiration level; (4) there were no inhibitory effects of organization patterns in participation in extracurricular activities; and (5) there was stability of performance within each socioeconomic status classification. (Author/IRT)

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Do School Organizational Patterns  
Make a Difference?

by Edward R. Caliste

Over the years many educators and educational organizations have taken a strong position on the best sequential grade aggregation that will better facilitate growth and development of children in the schools. Each group or organization defends its choice usually in terms of broad educational goals. The organizational patterns started in the late 1600 and early 1700 and continues in our present systems. There seems to be as much diversity of opinion now as existed over one hundred years ago as to the best selection or grouping by grades that will enhance both adjustment and learning. While millions of dollars are spent on the various grade patterns, it is also interesting to note that there is no significant research data to support the use of any particular pattern.

Basic Organizational Patterns from  
1938-48

The National Education Research Bulletin(1) gave the following breakdown of school organizational patterns as they existed in 1948. The report was based on 1,372 city systems.

<u>Organizational Pattern</u>	<u>Percent</u>
6-3-3 -----	35
8-4 -----	23
6-6 -----	16
6-2-4 -----	12
6-3-3-2 -----	4
7-5 -----	3
5-3-4-2 -----	2
6-2-4-2 -----	1
7-2-3 -----	1
Others -----	3

It is very difficult to relate the diversity of organizational school patterns to the specificity of the needs of children as described by the developmental psychologist. The age range encompassing these organizational patterns would certainly include children with a wide range of emotional stability, physiological and psychological needs and values and levels of maturity.

School Organizational Patterns from  
1948-60

Grade-level organizations continue in what educators might call a logical and orderly sequence with the final judgment being made by the decision making personnel in the school district. A very comprehensive

study of elementary school organizational patterns was conducted by the U. S. Office of Education(2); the results were published in 1960. Following are the findings of this study:

School organization, exclusive of publicly supported kindergarden programs, by U. S. and regional percentages.

<u>Type of School Organization</u>	<u>Total U. S.</u>	<u>North-East</u>	<u>North Central</u>	<u>South</u>	<u>West</u>
6-3-3	33.8%	31.0%	35.0%	30.0%	31.0%
6-2-4	16.4	10.7	12.5	15.2	18.2
6-6	14.6	14.6	19.0	10.3	15.0
7-5	3.5	5.3	.9	3.7	5.1
8-4	23.9	32.9	16.7	26.2	18.4
Other <sup>P</sup>	7.8	5.5	6.9	8.6	12.3

The six year elementary school has maintained its stability from 1938 to 1960. However, there are no significant changes in the categories listed in the 1960 study when compared to the same categories in the 1938-48 study.

School Organizational Patterns from  
1960-70

The most recent comprehensive study of grading patterns is contained in the text Administration of Public Education, third edition by Stephen J. Knezevich, 1975(3). The author reflects on a study conducted in the 1960 which yielded the following data:

<u>U. S. Median</u>	<u>Percent</u>
6-3-3 -----	70
6-2-4 -----	15
5-3-4 -----	2
Other -----	10

The report also gives a breakdown of grading patterns by states. For example, in Minnesota 96% of the schools are on the 6-3-3 plan, 2% on the 6-2-4, and 2% not accounted for in the study. The District of Columbia has 100% of its schools on the 6-3-3 plan. However, the state of Arizona has only 9% of its schools on a 6-3-3 plan, 73% on the 6-2-4 plan and 18% on various other organizational patterns. Unfortunately, the study does not include a detailed analysis of other patterns such as those listed in the 1938-48 survey.

In order to determine the effect of school organizational patterns on learning and school adjustment, the author conducted a study which compared twelfth grade students who attended schools organized in a K-8 self contained structure with students who attended schools organized in a K-3, 4-6 self-contained classroom and then a 7-8 departmentalized organizational structure. The 7-8 departmentalized structure was based on the variables of achievement, stability of socioeconomic aspirational level as measured by eighth and twelfth grade occupational choice and school adjustment over this period. All of the students attended ninth grade in one school and then one which used a 10-12 pattern. The author visited all

of the schools to verify the organizational patterns of each school. One school had multiple grade levels (4, 5, 6) in one classroom. The specific purposes of the study were as follows:

- 1) To compare twelfth grade GPA of K-8 students with twelfth grade GPA of 7-8 students in order to determine differences over a four year period.
- 2) To analyze the perception of school experiences peculiar to students with K-8 organizational background that are different from those with a 7-8 background.
- 3) To determine whether there is a stability of socioeconomic aspirational level as measured by occupational selection in ninth and twelfth grade.
- 4) To determine whether the participation in extra-curricular activities of pupils with a K-8 background, are in proportion to those with a 7-8 background.
- 5) To determine the effects of SES on these variables.

#### Rationale for Matching

To accomplish these purposes, 22 K-8 pupils were matched with 22 7-8 pupils. Students were matched on the verbal-reasoning percentile rank of the DAT and socioeconomic status using Hollingshead's Index of Social Position(4).

The verbal reasoning (VR) of the DAT is a series of verbal analogies designed to measure both verbal ability and deductive reasoning factors. Since these factors serve as a basis for school achievement and are also objective forms of measurement, the test was selected as a valid criteria for matching. The VR percentile information was obtained from the cumulative record during the first quarter of the ninth grade. Therefore, scores probably represent the achievement of these students before the influence of their ninth grade educational training, thus providing a more valid basis for measuring the influence of additional school learning on these students.

Socioeconomic status was selected because it is a subjective measure of status, life style and values that influence both school achievement and school adjustment. School adjustment was measured by a student questionnaire developed over a four month period using twenty-six items from The Mooney Problem Checklist. This information was cross-validated by a structured student interview.

#### Summary and Conclusions

The results of the study showed that (1) achievement as measured by GPA was not statistically significant on the T-test at the .05 level for this population; (2) there were few differences between seniors with K-8 and 7-8 school organizational background experience; (When differences were found, they were more related to SES and sex rather than trends that could

be attributable to previous school organizational structure); (3) there was no meaningful difference between K-8 and 7-8 students in stability of socioeconomic aspirational level; (4) there was no inhibitory effects of organizational school patterns in participation in extracurricular activities; (5) there was stability of performance within each SES classification.

Some specific findings which might interest educators are as follows:

- 1) A total of 25 students (12 K-8 and 13 7-8) expressed a need for more assistance in developing good study habits.
- 2) A total of 25 students (15 K-8 and 10 7-8) expressed a desire for assistance in outlining school work or taking notes in class.
- 3) 7-8 students spent two hours more per week studying school work than K-8 students. However, there was no significant difference in achievement when SES and intelligence were measured by verbal reasoning percentile rank of the DAT.
- 4) 33 students (18 K-8 and 15 7-8) indicated that they did not have a strategy or system for studying school work. They simply read and memorized the material for the following day.
- 5) An assumption of departmentalization (7-8 students) was that the development of interpersonal skills as a result of mixing would improve socialization. However, more 7-8 students (15) than K-8 students (10) indicated a need for assistance in developing poor relationships.

### Implications for Education

Since school organizational patterns showed no significant difference in this study in achievement, in stability of socioeconomic aspirational level or in participation in extracurricular activities and since stability of performance exist within each SES classification, the current emphasis on school organizational grade patterns may be misleading if the goal of education is achievement and school adjustment. However, a careful observation of the specific findings indicate that these goals may better be achieved by:

- 1) Helping students to acquire a method of studying and preparing for academic challenges such as outlining school subjects by categories and subcategories of knowledge and by indicating the relevancy of these categories to the concepts and principles being disseminated.
- 2) Providing more school supervision of individual assignments or supervised independent study rather than giving home assignments.
- 3) Identifying the learning styles of children and teaching the use of intellectual tools in developing strategies that are appropriate to problem solving situations.
- 4) Teaching skills that will facilitate personal-social adjustment.

If we are going to provide students with some continuity in their educational training, we might very well improve the educational process by looking at other factors; such as, teacher variables, if effective communication, types of programs offered, the learning styles of children and factors contributing to an increase in the level of motivation through relevancy of materials or content.

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