

Grade Configuration in K-12 Schools

Nancy McEntire

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Many educators and communities are searching for evidence on the best way to provide a high-quality education for their children and to make the best use of their education funds. One area that is of perennial interest is how to best configure the grades in local schools. Public education in the United States provides for kindergarten through grade 12 in a variety of grade arrangements, from the K-12 school to separate schools for single grades. Unfortunately, as Paglin and Fager (1997) point out: "Research has not provided definitive answers to the myriad possible questions about grade span, but the questions have never gone away. They are questions which arise whenever school reform, increasing or declining enrollment, or financial considerations bring about a reorganization of existing schools, the building of new schools, or consolidation of districts" (p. 2). Much of the research available has been done on rural or middle schools. The research on the "best" grade configuration is inconclusive. At best, it indicates factors to be considered in deciding on a school's grade span or a community's configuration of grades within its elementary and secondary school system.

How do schools differ in grade configuration?

Schools in the United States are organized in different ways: some schools include K-3, K-4, K-5, K-6, K-8, K-9, or K-12; others are organized as middle schools, junior high schools, and senior high schools; and still others consist of students in just one grade, such as a kindergarten center or a ninth-grade center. Some schools include pre-kindergarten. The U.S. Department of Education's National Center for Education Statistics (2002) provides data on the number of regular public school districts providing instruction and the percentage of students in membership, by grade span and by state, for the school year 2000-2001 (<http://nces.ed.gov/pubs2003/2003310.pdf>, Table 3).

Single-grade-level configurations

The literature suggests that some school districts have found advantages to schools that contain students at one grade level, although these advantages are not necessarily supported by research (Reents, 2002):

- A single-grade center, such as a school only for ninth-graders, can develop programs specific to the needs of that age group.
- Siphoning off students from several schools can relieve overcrowding at those schools.
- Students may be able to participate on an equal level in more activities and be less influenced by older students.
- The greater number of students in single-grade centers may enable the school to increase course offerings.

The literature also suggests some possible disadvantages to separate single-grade configurations (Hopkins, 1997):

- The cost and length of student travel increases, particularly in a school district that covers a large area.
- Parent involvement may decrease, possibly affected by the distance to the school and the number of schools a family's children attend.
- Students are required to make an increased number of school transitions.
- Fewer opportunities are provided for interaction between age groups.

Hopkins (1997) also suggests some additional factors for school districts to consider:

- Combining schools into separate grade centers may affect whether neighborhood schools close or remain open.
- Current buildings may have a design more suitable for several grade levels.
- School population may increase or decrease substantially as configurations change.

Other grade-level configurations: Middle schools, K-12

"Much of what has happened with regards to school grade structure can be attributed to the development of the middle school" (Franklin & Glascock, 1996, p. 4). The separation of students in grades 5 or 6 to 7 or 8 in middle schools is justified by some school districts because districts believe that middle schools better meet the developmental needs of preadolescents. As Howley (2002) points out, the developmental needs of young adolescents differ from those of elementary school children and older teenagers. "Developmentally responsive middle schools must take into account all that is known about young adolescents and the cultural context in which they live" (Lounsbury, 1996). The number of middle schools increased by 35% from 1967 to 2000 (<http://nces.ed.gov/programs/digest/d01/dt095.asp>).

In the past decade, researchers also have demonstrated renewed interest in schools that include grades kindergarten through 12. A study of rural schools that examined the relationship between grade configuration and student achievement in Louisiana found that students in K-12 rural schools did as well or better on achievement tests as students in separate elementary, middle, or high schools. Students in high poverty areas also did better in the K-12 schools (Franklin & Glascock, 1996). A similar study in Texas analyzed data from a study of 1001 Texas high schools, including 116 K-12 schools. This study produced similar results (Bickel, Howley, Williams, & Glascock, 2000).

How do grade configurations affect transitions?

The division of elementary schools into configurations that include fewer grades requires that students make several transitions from one school to another. Researchers note that transitions can be stressful for students:

- Alspaugh (1999) found a significant achievement loss during each transition year. He also found that some students regain what is lost in the following year, but it would seem that students who make fewer transitions need fewer years to make up for achievement losses caused by transitions.
- Another study found that each time students switched schools, their feelings of anonymity increased. Researchers who found that sixth-grade students in both elementary and combination K-12 schools outperformed students in middle schools or junior high schools considered the number of transitions a significant factor. This study considered 8 schools with 7 different grade spans with student populations of 82 to 1,200. The schools were located in both urban and rural settings in 5 northwest states. The number of grades in the schools ranged from 1 to 11 (Paglin & Fager, 1997).
- Another research study found that girls in early adolescence suffered from a drop in self-esteem, extracurricular participation, and leadership behaviors when they made the transition into middle school or junior high, but not if they remained in an elementary school setting. This study found that the effects of this transition lingered throughout the school years. For boys, the study found similar negative effects in extracurricular participation and grades, but not in self-esteem, when they made the transition into middle school or junior high. The authors concluded that the relatively protected elementary school setting made the entry into adolescence less stressful for both boys and girls. The students who had not had the stress of the earlier transition seemed to cope better with the transition into high school than did other students (Simmons & Blyth, 1987).

- Franklin and Glascock (1996) found that sixth-grade boys experienced more suspensions in middle schools or junior high schools than in elementary schools, possibly related to the effects of the transition, the school organization, or school size. This study was based on information gathered from all Louisiana public schools during the 1992-1993 school year.

What factors do school districts consider when deciding on grade configuration?

Researchers at the Northwest Regional Educational Laboratory looked at eight schools with seven different grade spans. They examined the history of each school's decision on grade configuration along with observed advantages and disadvantages of each configuration and principals' comments on the success of their programs (Paglin & Fager, 1997). Based on this research, Paglin and Fager compiled a list of nine factors that school districts might want to consider when making decisions about grade configurations of individual schools:

- the cost and length of student travel, particularly in a school district that covers a large area
- a possible increase or decrease in parent involvement, possibly affected by the distance to the school and the number of schools a family's children attend
- the number of students at each grade level, which may affect class groupings and courses offered
- the effect of school setting on achievement, particularly for grades 6-9
- effect on whether the neighborhood schools close or remain open
- the number of school transitions for students
- the opportunities for interaction between age groups
- the influence of older students on younger students
- the building design-is it suitable for only a few or for several grade levels?

Paglin and Fager concluded that designing a school system to use a particular span of grades in individual schools will not in itself guarantee that students will learn well and be well adjusted.

References

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Resources

- [The Academic Effectiveness of Small-Scale Schooling \(An Update\)](#)
- [Evidence for Moving to K-8 Model Not Airtight](#) **Registration required.**
- [Grade Configuration: Who Goes Where? \(Education World\)](#)
- [In the Middle: Characteristics of Public Schools with a Focus on Middle Schools](#)
- [K-8 Schools: An Idea for the New Millenium?](#)
- [The \(Limited\) Evidence Regarding Effects of Grade-Span Configurations on Academic Achievement: What Rural Educators Should Know.](#) ERIC Digest.
- Motivation and Middle School Students
Lynley Hicks Anderman and Carol Midgley (1998)
[English](#) | [Spanish](#)
- [Number of Regular Public School Districts Providing instruction and Percentage of Students in Membership, by Grade Span and by state: School year 2000-01](#)
- [Public Elementary Schools, by Grade Span and Average School Size, by State: 2000-2001 Table 3](#) (To view this table, click on Table 3 under Summary Tables.)
- [Research about School Size and School Performance in Impoverished Communities.](#) ERIC Digest
- The Transition to Middle School
Donna Schumacher (1998)
[English](#)
- [Education World: Where Does Sixth Grade Belong?](#)

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ERIC database search through 05/2005 on *Grade Configuration*

- The Effect of Grade Span Configuration and School-to-School Transition on Student Achievement. [ED479332](#)
- Revival of the K-8 School. [EJ640942](#)
- Update on the Relationship between Elementary Grade Span and Student Achievement: Identification of Human Interactions and Behaviors in a Kindergarten-2nd Grade Configured Young Primary Elementary Which Resulted in Superior Student Achievement Observed in the 4th and 5th Grade. [ED473710](#)
- Directory of Public Elementary and Secondary Education Agencies, 2000-2001. [ED472649](#)
- An Examination of K-5, 6-8 versus K-8 Grade Configurations. [EJ648686](#)
- How Should Schools Be Organized? [EJ650573](#)
- Middle Schools Still Matter. [EJ640946](#)
- Grade-Span Configurations. [EJ640945](#)
- The Efficacy of Philadelphia's K-to-8 Schools Compared to Middle Grades Schools. [EJ630006](#)
- [ED447995](#) Will the Real "Texas Miracle in Education" Please Stand Up? Grade Span Configuration, Achievement, and Expenditure per Pupil.
- High School Size, Achievement Equity, and Cost: Robust Interaction Effects and Tentative Results. [ED450991](#)
- Grade Span. [ED440471](#)
- The Relationship between Grade Configuration and Student Performance in Rural Schools. [EJ584549](#)
- Grade Configuration: Who Goes Where? By Request Series. [ED432033](#)
- Accountability Works: Analysis of Performance by Grade Span of School. [ED411278](#)
- K-12 Unit Schooling in Rural America: A First Description. [ED401058](#)
- The Relationship between Grade Configuration and Student Performance in Rural Schools. [ED403083](#)
- A Comparison of Four Enrollment Groups of K-8 and K-12 Missouri Rural School Districts. [ED389501](#)
- Transition Effects of School Grade-Level Organization on Student Achievement. [EJ505828](#)
- The Elemiddle School: A Model for Middle Grades Reform. [EJ496194](#)
- An Examination of the Non-K12 School District Organizational Form in New York State. [ED380245](#)
- The Cultural Contradictions of Middle Schooling for Rural Community Survival. [ED372883](#)
- Grade Span and Eighth-Grade Academic Achievement: Evidence from a Predominantly Rural State. [EJ464589](#)

- Grade-Level Reorganization in a Small School District: Making and Implementing the Decision. [EJ454389](#)
- Schools in the Middle: Progress 1968-1988. Schools in the Middle: A Report on Trends and Practices. [ED327000](#)
- Middle Level Education in California: A Survey of Programs and Organization. [ED315897](#)
- Vertical Articulation for the Middle Grades. [ED315896](#)
- When Your K-5 School Changes to 3-5. [EJ466872](#)
- Elementary School Reorganization: Looking Back One Year Later. [EJ466851](#)
- The Impact of Transition from Junior Highs to Middle Schools on Science Programs. [ED340604](#)
- Middle Level Organization--A Curriculum Policy Analysis. [ED331157](#)
- Life in the Three Sixth Grades. [ED301313](#)
- The Effects of Various Middle-Grade Configurations. [ED297417](#)
- Grade Organization in Secondary Schools, with Particular Reference to the Junior-Senior High School Model (Grades 7-12 or 6-12). [ED270404](#)
- Primary and Intermediate Grade Configurations: A Review of the Literature. [ED252928](#)