



Optimum Grade Groupings

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EXECUTIVE SUMMARY

Researchers agree that the grade grouping of a school is not as important to academic success as is the quality of the program and the curriculum. However, it is still important for the grade grouping to be assessed, because these groupings do remain a factor affecting the academic success of students. In many cases, a change in grade groupings is fairly easy to implement, with little cost associated with optimizing the new groupings. Districts also need to assess grade grouping choices when as new schools come on-line, or older schools are renovated.

Grade grouping configurations have varied widely over the past 100+ years, as new research has come to light, and also as the social fabric of the student population has changed. Most research does agree that at least 3 grades in each school are optimum, and, as a result, the PK-5th, 6th-8th, and 9th-12th grouping has shown the most merit. This allows for the high school grades to be a self-contained group, allows for the most longevity in one school at the earliest of grades, and allows for a middle school that could, theoretically, be tailored to the needs of an adolescent school population.

Due to the demands made on school administrators regarding testing, having the 5th grade within the elementary school provides for continuity in working with students who are to be tested in the 5th grade. Most important, the more grades contained in a school, then the more involved the parents will be, and parental involvement is the chief predictor of academic success. Finally, even the at-risk population can be lowered with more grades per school -- particularly by avoiding unitary grade campuses, such as a 6th grade or a 9th grade campus.



OPTIMUM GRADE GROUPINGS

Without fail, researchers agree that the quality of school programming is more important than grade level configuration in a district. There is wide variation in grade-groupings throughout school districts, and some non-traditional grade-groupings have met with success for a variety of reasons. Three statements are consistent in school organizational research:

1. effective grade level groupings depend on the school district;
2. decisions of this nature are generally made on the basis of single issues (such as a need to use an older high school and to convert it to a ninth grade campus);
3. at least three grades per campus are warranted to achieve maximum parental involvement and student identification with the school.

School district economics, educational equity for minority children, philosophical positions regarding the nature of schooling children, and state standards are factors that spawn different grade-grouping plans. District norms and locations may play a role as well, in that a rural school district might keep middle-school aged children combined with elementary grades to bolster community and to make the best use of resources, while an urban district might prefer to separate middle school students from very young elementary school aged children as early as possible.

In trying to make a decision about optimum grade-groupings, there are hundreds of factors that could be considered, including, but not limited to: the number of students, transportation costs, socioeconomic status of the student population, school system goals for student achievement, effects on other schools, number of transitions for affected students, school build layout/design, and effects on parent involvement.

However, most factors will fall into one of three categories: the student, the program, and the support systems. When considering these categories, the resulting optimum grade-grouping has recently been considered as the PreK-5, 6-8, and 9-12 arrangement, although the PreK-8, 9-12 arrangement has begun to make a strong reoccurrence, especially in some large, urban districts out of the State. This does not, however, mean that other grade-groupings are not

viable options for certain districts. The merits of several different plans are described below.

Most literature in school organization focuses first on the grade-grouping arrangement of the middle grades. Researchers seem to agree that early elementary school grades should be kept together, as should high school grades, so when, where, and how to break the middle school grades becomes the primary question.

At the turn of the 20th century, many of the school systems used a K-8, 9-12 configuration, but concerns about the middle grades turned educators to a "Junior High School" system that utilized a K-6, 7-8 or 7-9, and 9-12 or 10-12 configuration.

On occasion, unitary grade-groupings were also utilized, as a way of focusing attention on one particular grade level. This unitary grade plan, and, also, the two-grade plan, were both used heavily during the desegregation era – to allow attendance zones to be large enough to encompass a diverse student population.

During the mid-1900s, educators saw declines in student achievement in the middle grades, and began to push for the "middle school" concept, which, in theory, would allow schools to structure a flexible, team teaching, fluid approach, designed to specifically meet the needs of middle school aged, adolescent students. In truth, however, such fluid, flexible, specialized styles of teaching were rarely developed, and there has been a recent resurgence of K-8th grade schools in the last 8-10 years.

Consistently, the results indicate the negative consequences of placing the ninth grade in a unitary grade environment (in a satellite campus isolated from other grades). There tends to be a lack of identification with a school housing only one grade level, and less consistency in programming. For example, ninth grade students have a lessened realization of the academic impact of their grades in the ninth grade (as being critical for college planning), and there is less parental involvement, since the students are perceived to be at the school only a one year period. Isolating the ninth grade tends to increase the at-risk student population. Conversely, placing the ninth grade into pods, wings, or even stand-alone buildings of high school campuses that are oriented to grades 9-12 is ideal. But these multi-nucleated campuses need to keep one administration and be considered as one school operationally.

This same set of criteria applies to the isolation of the sixth graders into a single-grade campus, and also to keeping Kindergarten students apart from other elementary grades. Both these grades need to be a part of the

academic programs and the necessary steps taken for students' optimum scores on standardized tests.

Of particular significance, for several reasons, is the grouping of the PreK-5th (or KN-5th) grades. The six or seven continuous years in attendance at one school provides continuity for the children and allows access to one support team of faculty and staff, provides teachers an opportunity to provide curriculum sequences to optimize learning, and allows for close monitoring of student academic and emotional progress. This arrangement also provides greater opportunity for parental involvement due to extended time at one school. Finally, the PreK-5 grade-grouping supports child development theories that recognize a distinct stage of development beginning at the age of 10 or 11.

At the same time, evidence exists at the middle school level of the need for at least three grades per school, in that parental involvement is the key predictor of academic success and parental involvement is lessened with only one or two grades per school. The at-risk student population is impacted with less than three grades per campus. Thus, the middle school should contain at least grades 6-8, with some research done in the last ten years supporting leaving these students as part of a PreK-8th grade elementary school.

However, the Texas Education Agency, the National Office of Education, and other credible entities can offer no widely recognized and highly rigorous studies or data that would support one grade level grouping over another. Furthermore, after consolidating information from the readings, reviews, and discussions, from other school districts, and from the overall research in education, there is no final answer to the question of optimum grade-groupings based on educational philosophies and principles.

Many school district superintendents in Texas during the past several years have been striving for the maximum number of grades per school to raise TAKS test scores. It is felt that academic programs are partitioned out in negative ways if the students are not affiliated with a single set of teachers and staff over a prolonged period. This makes the teachers and administration of each school more accountable for the test scores of individual students. In other words, even when TAKS testing has been completed for the year, there should be immediate interest in preparing for the next wave of standardized tests, rather than a "rest" period due to the fact that the teachers and principal are not accountable for the current students' next round of standardized testing. This is one of the reasons that the PK-5, or KN-5, grade-grouping is desirable, in that the 5th grade remains at the elementary level until the standardized testing of that grade is completed -- with teachers and administrators supportively available who are familiar with each 5th grade student.

There is no clear evidence that one plan is universally better than others, and thus, many plans could be recommended with confidence depending on the unique circumstances within a given district. However, most districts that have single-grade or two-grade campuses have such a configuration due to maximizing the use of school facilities, rather than a focus on programmatic concerns and academic excellence for students. For example, some districts – to make use of underutilized buildings -- form a unitary grade campus, or campuses.

A school district should make grade-grouping decisions on the basis of what is optimum for that district in providing a quality educational program. And, finally, a review the school districts in Texas reveals that many successful groupings are evident, but that the PK-5th (or the KN-5th) provides the most widely-used model at this time. And, the grade-groupings that have one or two grades per school are normally less desirable, in that, as noted above, at least three grades per school are needed for parental involvement, for student identification, and for on-going teacher and administrative assistance with each student.

Tables 1-6 on ensuing pages have been prepared to assist the reader in understanding the advantages and disadvantages of six different grade level structures. In addition, in an effort to provide complete information to the reader of this report, a research bibliography is included. The reader is encouraged to study these documents, particularly if additional detail is desired on the subject of optimum grade level structure based on —

- educational philosophies and principles,
- the desired social and psychological impacts on children, and
- considerations of ethnic or socioeconomic balance (achieved through small grade-groups or unitary grades per school) or other rationales for grade-grouping -- that allow a greater geographic area to be encompassed per attendance zone if the grade-groupings are such that there are only one or two grades.



GRADE-GROUPING ALTERNATIVES

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Alternative No. 1: Pre-K-5, 6-8, 9-12

The most compelling justifications for the PreK-5, 6-8, 9-12 arrangement follow. For the PreK-5 portion, the six years continuous attendance at on school facility during the early elementary years is significant. A plan that allows children to be on one campus and with one support team of faculty and staff, without interruption for several years, provides the time needed to produce an optimum learning situation. This grade-grouping provides the maximum amount of time on one campus in the early grades -- of any grouping that utilizes a middle school of some sort.

The time span offered in the PreK-5 arrangement permits greater continuity of teacher-student and principal/administration-student relationships, as well as curriculum sequences so that the school could provide an optimum situation for the learners. The student's academic progress can be closely monitored so that there is less opportunity to overlook needed learning programs of important curriculum sequences necessary for individual academic and emotional development. Also, many principals and superintendents in Texas feel that keeping the 5th graders in elementary school improves 5th graders' standardized test scores. This arrangement also allows fifth graders more leadership opportunities, and subsequently more student participation, that helps to foster greater self-esteem.

This arrangement also has a positive effect on parental involvement. It is recognized that increased parental participation in school events and activities increases the academic achievement of the students. The single elementary unit of six years offered in the PreK-5 arrangement provides the extended time to develop and larger number of parents available to provide support for school events and activities.

Furthermore, the PreK-5 arrangement supports child development theories that recognize a distinct stage of development beginning around the ages of 10 and 11. This age has been associated with a wide range of individual differences among the students that includes physical, social, and emotional variances. Although evidence of these changes can be observed in the fifth

grade or even the fourth grade, child development theorists will often identify the year in the sixth grade as a time of change.

And, there is the pragmatic rationale of keeping Texas' 5th grade students in elementary schools to better deal individually with the challenges of TAKS and any other standardized tests. The need to work with students to optimize the passage rates and skills required for standardized tests is an argument often used by Texas administrators for the PreK-5 configuration.

However, the placement of fifth graders is open to much debate among educators. Some studies seem to conclude that fifth graders in the intermediate or middle school unit is producing neutral to favorable results. It has been argued that this placement results in an increase in self-esteem and provides for an easier transition from elementary to middle schools. However, there is a concern that most nine and ten year olds have not reached puberty and would be out of place in units that focus on students in emotional and transition stages. Being placed in a situation of transition would be difficult for the immature fifth grader, while the more mature fifth grade students would probably be less affected by the behavior of younger elementary students.

A disadvantage of the PreK-5 arrangement is that while age and developmental specialists could be more concentrated in school units more effectively, the content specialists (art, music, physical education, science, etc.) might be more diffused and therefore unavailable to the fifth graders and other primary school students that are grouped together. The school district may not supply as many content specialists to an elementary grade arrangement focusing on older students where the content is presented more in depth. This would ultimately affect the presentation of content and special programs to the fifth graders who may currently benefit from special programs and content specialists.

The PreK-5 arrangement recommendation necessitates a secondary endorsement--that of grades 6-8 in middle school. This arrangement, in conjunction with the 5-8 middle school arrangement, replaced the junior high schools (grades 7-9) in many districts nationally over the last several decades.

Much middle schools literature and research supports the 6-8 grade configuration arrangement for the middle school years in positive terms, as it is thought that a school centered on those grades will be able to address the unique challenges that come with adolescence. In addition, most administrators identify this arrangement as the most effective in terms of developing programs. In sum, while there is evidence of many organizational plans across grades 4-9 that are labeled as middle schools, most of the literature defines middle schools as a 6-8 configuration.

The most positive factor in the middle school organization is the opportunity for gradual change from the self-contained classroom of elementary schools to the complete departmentalization of secondary schools. This arrangement facilitates the organization of staffing to provide teachers competent for middle school development and content.

A second positive feature of the 6-8 arrangement includes the recognition that the ages 10-14 are a different developmental stage from the elementary years and from the high school years. It is the diversity of adolescents that calls for special programs and a separate institution. Their lack of similarity is what they have in common. The middle school arrangement recognizes and supports this child development theory and provides a program especially designed for the child going through the unique "transient" period of growth and development (Wiles & Bondi, 1981). The 6-8 grade arrangement, as well as the 5-8 grade-grouping, facilitates these types of programs more effectively than other middle school arrangements. Also, more favorable attitudes towards school and higher self-esteem of the students can be evidenced.

Finally, the ninth grade should never be split out as a separate campus, and this grade-grouping places the 9th grade in with part of the high school. Unitary grade isolation at the 9th grade appears to significantly increase the drop-out rate, primarily due to a lack of identification with the campus or with administrators and teachers, either by the students or by the parents. Parental involvement is substantially lower with any unitary grade campus. Thus, it is important to keep the ninth grade as an integral part of a multi-grade environment.

A primary consideration for the selection of optimum grade-groupings is to retain at least three grades on any one campus in order—

- to maintain a high level of parental involvement;

- to encourage students to have a strong identity with the school;

- to allow faculty/administrators to gain a working knowledge of individual students.

Alternative No. 2: Pre-K-8, 9-12

There has been a recent push by some districts to return to a PK-8th concept that was used at the turn of the 20th Century. The continued poor performance of 8th grade students has driven much of the research and grade level changes throughout the last century. In the 1950s and 1960s, when 8th graders were continuing to lag on national and state tests, leading educators began encouraging the creation of the 6th-8th grade “middle school” concept. It was thought that these schools would be able to create small learning communities, team teach, and be flexible to meet the needs of adolescents.

Forty years later, however, eighth graders are continuing to lag on standardized tests, and some see the “middle school” as now being the problem. In most cases, the small learning communities, team teaching, and flexible schedules did not occur.

In the early 2000's, Cincinnati, Cleveland, Milwaukee, New York City, Philadelphia, Portland, and Kansas City, MO, among others, began converting many of their schools to K-8 schools. The question remains as to how this is improving student performance.

Naturally, in such a grade configuration, the number of transitions is minimized. Additionally, there should be excellent use of facility space throughout the schools, due to the fact that if one cohort is larger than another, the classrooms can be used appropriately throughout the facility (i.e., a third grade classroom one year can be used as a 4th grade classroom the following year.) As noted earlier, there need to be at least three grades in each school, and some research has shown that those schools with K-8th grades had very high parental involvement, even into the middle grades, where parental involvement typically breaks down. (Many of the schools studies were smaller, rural schools, however, so it is unclear if this is likely to hold true in larger, suburban districts.)

Parents in K-8 schools often report that there is a greater sense of community in these schools, as they are normally closer to the neighborhood, with lesser travel times. One study also found that student absence rates increased when the students were in middle schools instead of remaining in elementary schools.

Student achievement seems to increase as well. One lengthy study of New York City schools has shown a substantial decrease in student achievement the year that a student makes a transition to middle school, whether that is during the 6th

grade or 7th grade year – a decrease that does not rebound the following year. Students of the same grade group that remain at an elementary school do not see this substantial decline, and in fact, continue to do well on standardized testing. Studies in Cleveland, Ohio, Pittsburgh, PA, and Philadelphia, PA showed statistically significant differences in achievement by students who attended a K-8 school when compared to students attending elementary and then middle schools.

Chances are that each cohort in a K-8 school will be smaller than the cohorts in schools with fewer grades. One study found that an 8th grader who attends schools with 200 other students in his grade would score .04 standard deviations lower in both math and English than he would if attending school with a cohort of 75 students. Studies in Cleveland, Ohio and Philadelphia, PA showed statistically significant differences in achievement by students who attended a K-8 school when compared to students attending elementary and then middle schools.

When students are pulled into a middle school that houses 5th-8th or 6th-8th grade students, several elementary schools are combined. This substantially disrupts a student's immediate peer group, at a time, when students are most socially vulnerable.

One recent study looked at existing K-8th schools, schools newly converted to a K-8th system, and traditional 6th-8th grade middle schools. It found that the existing K-8th grade schools performed significantly better than middle schools, but it did not find such a difference between newly converted K-8th grade schools and middle schools. The study finds that existing K-8th grade schools have teachers with more longevity at the school, as compared to teachers at middle schools, who often leave the middle schools as soon as possible in order to avoid the difficulties associated with the middle school grades. It also finds that the schools in the study that were newly converted to a K-8th grade system often had a larger concentration of students receiving free and reduced lunch than the existing K-8th grade schools. The study only followed students for a few years, however, which was not an adequate amount of time to see whether the longevity of the teaching staff increased and whether or not the culture of the new K-8th grade schools developed a stronger expectation of academic achievement.

Little study has been done on how the younger grades are affected by being on a campus with 7th and 8th grade students. Much of the research has focused on the middle school grades in isolation. It is likely that many parents will not care to send their very young children to school with middle school aged students. However, in some K-8th schools, mentoring programs have been

created to allow the middle school students opportunities for leadership and to create structured, cross-grade interaction that builds community in the school.

Also, the most in-depth study on middle school student performance did not continue to follow students into high school. If the students from a K-8th grade school see a substantial academic decline in the 9th grade that is not shown by students who attended a middle school, then such a transition would likewise need to be addressed. One study from Miami-Dade County schools shows that a K-8 school improved test scores at the 6th and 7th grades, but that at 9th grade, scores were identical for those students who attended a K-8th school and for those that attended a traditional middle school.

Existing schools would have to make facility modifications across the board to convert to such a grade-grouping, with a need to add extracurricular activities facilities to elementary schools (band halls, gymnasiums, labs, athletic fields, etc.) while existing middle schools would need to add playgrounds, smaller restroom facilities, different library books, etc., to their schools in order to facilitate such a transition. (Science labs and computer labs would also be a concern for any elementary school converted to a K-8th school.) It is possible that middle school students from some of the existing elementary schools could be bussed to existing middle schools for their last period(s) of the day for sporting activities, etc., much as swim teams may be bussed to a central natatorium for swim team work for their last period of the day.

Attendance zone boundaries would have to be completely redrawn to facilitate such a change. Attendance zones would become smaller, as all students below high school would then be attending their same neighborhood school. These smaller attendance zones would make it harder to socio-economically or ethnically balance the schools in most instances.

A vast majority of the elementary and middle schools in Texas have a capacity between 600 and 1,000 students, and if a K-8th system were put in place in these schools, each cohort would contain 65 to 110 students, similar to the preferable 75 student cohort discussed above.

Alternative No. 3: Pre-K-3, 4-6, 7-8, 9-12

In terms of developmental appropriateness and suitability, the research shows that children ages 5-8 are developmentally similar. Thus, a PreK-3 arrangement would provide the appropriate structure for maturation and development of children in this age grouping.

Likewise, in grades 4-6, students are developmentally similar and are progressing at a different level from the younger students. Their conceptual base has been formed and they are able to achieve differently, at different rates, and in a different environment. Students in grades 4-6 need more opportunity for independent learning and are able to function and learn in a more independent educational environment.

The PreK-3, 4-6 organization still provides for at least three years on one campus at the elementary school grades. For enhanced success of this arrangement, a paired or feeder school concept is desirable. This allows for support of parent/teacher groups to be established, as well as the development of student role models. Such continuity is essential for optimization and is a vital link between home and school. As with the first recommended arrangement, this link can assist in the establishment of cooperative programs using volunteers that benefit students, teachers, and parents. In addition, successful articulation across the curriculum (between administrative units) is enhanced with the arrangement when feeder or paired schools are utilized.

The PreK-3, 4-6 arrangement, as with the first recommended arrangement, can provide the primary students with the needed security of having one teacher all day long and the intermediate students with the needed orderly transition between the nurturing environment of their primary years and the subject-centered environment of secondary school.

With the PreK-3, 4-6 structure, grade 7-12 would be divided into a middle school (7-8) and high school (9-12) arrangement. If the 6th grade is kept at the elementary school and the high school is to be defined as a 4 year course of study, then the middle school must, by definition, only consist of 2 grades, which, as discussed elsewhere in this report, minimizes parental involvement and teacher and administrator continuity.

This overall structuring provides maximum opportunities to develop student leadership roles (four different levels). In addition, successful articulation across the curriculum (between administrative units) is enhanced with the arrangement

when feeder or paired schools are utilized at the earliest grade levels. The structure also provides excellent opportunities for stronger special program areas in the middle school grades. However, the requirement for four transitions in the school career lessens opportunities to monitor the learning needs of students and lessens the continuity of student- teacher relationships.

Alternative No. 4: Pre-K-4, 5-6, 7-8, 9-12

This is a grade-grouping widely used by school districts that do not currently employ the 6th-8th grade middle school. Some parents and educators seem to see the 5th and 6th grades as being developmentally similar, and the 7th and 8th grades, but less the 6th and 8th grades or the 5th graders with the younger elementary grades.

This grade-grouping does not allow for at least three grades at all campuses, and would, therefore, minimize parental involvement in the middle grades, where such involvement drops dramatically, regardless of grade group. This campus structure also does not foster a secure and long standing teacher-student relationship nor does it provide older students as true role models due to the middle school campuses only containing 2 grades.

One advantage of this organizational structure is that it includes opportunities for student leadership at four different levels.

A primary educational disadvantage is the failure to recognize the developmental stages of students. This includes the inclusion of fourth graders in elementary school while excluding fourth graders from contact with students in the fifth grade, despite their greater similarity to the fifth graders.

Another disadvantage is the three transitions over the school career which further lessens the continuity of teacher- student relationships, lessens the opportunities to monitor the learning needs of the students, and provides less support for the transition from elementary and middle schools. This structure also creates complications of articulation across the curriculum. Finally, certain grade-level bulges cannot be dealt with as easily as the PK-5th, 6-8 grade-grouping. In sum, the four school transition model, such as a PK-4, 5-6, 7-8, 9-12 grade-grouping, causes the need for more capacity (and more excess capacity generally) at each school than would be needed under the PK-5, 6-8, 9-12 grouping.

Some of the above concerns could be alleviated, however, with a paired, feeder-concept at the two middle-grades campuses. If both campuses worked closely together, curriculum ties could be strengthened, and some of the advantages of a broader grade spectrum campus might be recaptured. But, building paired schools can later cause problems, if and when it is felt that the grade-grouping needs to be changed, because there are two potential middle schools side-by-side, or in close proximity to one another.

Alternative No. 5: Pre-K-6, 7-8, 9-12

In terms of student development, this arrangement does not have any significant merit over the other plans. However, continuous progress is a definite strength, as the students would remain at the same campus through the full range of elementary grades.

The greatest advantage in a PreK-6 structure is in the area of program development. This arrangement permits a long continuity in content and full opportunity for the administrators/teachers and students to develop strong relationships. The arrangement allows for students to feel more secure while they mature on one campus. They feel they know their teachers before entering their classrooms on the first day of school. This grade configuration also allows six graders another year to mature while giving younger students leadership and role models of students above them to emulate. Teachers have the benefit of seeing students longitudinally, which enables them to better meet their long term needs.

Support systems are less well served in terms of the provision for content specialists in the curriculum than with other plans; i.e., teachers with strong backgrounds in a single subject area are not as readily available. On the other hand, parental involvement is the greatest with the PreK-6 of all the alternatives (with middle schools) that are considered. Regular faculty and the staff support could be reasonably well provided in this grade arrangement.

As discussed for the previous alternative, this overall structuring provides opportunities to develop student leadership roles (three different levels) and maintains at least three years at all but the middle school campus.

Alternative No. 6: Unitary Grade-Grouping

In some cases an adjunct or a satellite campus for students, most commonly for the sixth grade or ninth grade students, is discussed as an alternative grade-grouping. There is very little research that supports any form of unitary grade-grouping. A separate campus for sixth or ninth graders does not maintain the basic philosophy and principle that a minimum of three years on each campus is educationally desirable. It does allow for maximum facility utilization across the District, if, for example, one school has become underutilized or will lose its present functionality once a new school is built – thus allowing its use as a unitary grade campus simply to keep it occupied.

Additionally, some schools have found that unitary grade campuses, and also campuses with only 2 grades, can be useful in allowing teachers to focus curriculum that is specific to one age group and teach it exclusively at those sorts of campuses. Often these sorts of curricula are social in nature, dealing with drug use, alcoholism, etc.

The disadvantages of unitary grade-grouping abound. In particular, unitary grade-grouping lacks the continuity required to fully monitor the students' academic and emotional progress. Cooperative and special programs suffer. At the ninth grade level, drop-out rates are increased and even in lower grades, the percent of at-risk children rises.

One administrative complaint is that parents do not get involved and even parent-teach organizations cannot be formed, since parents tend not to be as heavily involved in a single-grade school setting. In sum, because the students do not spend an extended time at one school, parental involvement remains minimal. In addition, unitary grade-grouping typically requires the students to deal with four or more transitional periods during their school career. Typically, the choice to put the ninth or sixth graders on the satellite campus would be used only as an interim tool by which to implement a more functional group grouping.

It is possible, and quite common in Texas, to place a ninth grade pod or wing onto high schools. Likewise, a similar pod concept has been utilized for the sixth graders at a middle school or even an elementary school, particularly if space is available at one or more campuses.

In sum, it is ideal to keep students in a multi-grade environment, in order: to maintain identification with the facility and its faculty and staff; to encourage parental involvement; to maintain continuity in curriculum and programs that

benefit specific grade-groups; and to allow students to become an integral part of, and take on leadership roles, as they matriculate through a multi-grade school.



IMPACTS OF GRADE- GROUP CHANGES

2

Any one of the following may occur as a result of changing grade-groupings:

1. Achieving the desired level of ethnic or socioeconomic balance may be difficult under one or more of the ranked alternatives. With fewer grades involved, such as with a PreK-3 facility, the “catchment area” is larger, and, thus, there is an ability to attain greater diversity per school, with a smaller range of grades involved. (However, neighborhood schools are more readily acceptable at this time, perhaps negating the need for ethnic or socioeconomic balance as a key criterion for attendance zone planning.)
2. Facilities may not be currently available to accomplish a given grade-grouping. Also, facilities may be under-utilized or over-utilized under any other alternative grade-grouping. For example, a multi-purpose room (for physical exercise) or other indoor or outdoor facility is often required if the fifth grade is located in elementary schools. Often, districts make the decision regarding grade-groupings based on availability of classrooms in specific school settings.
3. Staffing costs may increase under one or more of the alternatives. There may be a need for more specialized staffing based on grade-group arrangements.
4. Transportation will be directly affected by all the alternatives, due primarily to the size of catchment areas involved in various grade-groupings.
5. Total costs of operation will be directly affected in all alternatives.
6. In grade-groupings that group a vast number of grades together, a maximum number of specialized facilities (labs, gymnasiums) will be needed at a large number of campuses. In districts with many elementary schools and only a few middle schools, if the grade-groupings are changed such that PK-8 attend all schools, all schools will need to

have playground equipment, gymnasiums, laboratories, etc., meaning expensive duplicative cost throughout the district.

7. In any grade-grouping that has numerous campuses of higher level grades in any district, the administration might need to discuss options for distance learning for specialized programs, and/or the option of allowing specialized teachers to travel between campuses. This would avoid the need for duplication in teaching staff and would reduce costs, while allowing for availability of special programs at all campuses.
8. A district might need to explore the option of transporting students during the last period(s) of the day to other campuses to compete in extracurricular activities, in order to alleviate the need for as many specialized facilities and faculty members at all campuses.



GRADE-GROUPING SUMMARY TABLES

3

Table 1

Summary: PreK-5, 6-8, 9-12 Grade Level Structuring

Advantages:

- Provides a minimum of three years at each campus
- Encourages continuity of teacher- student relationships
- Contributes to successful articulation between administrative units
- Extends opportunities to monitor learning needs of students
- Extends time and opportunities for parental involvement
- Supports a neighborhood concept
- Provide a developmentally appropriate setting for each age group
- Provides a focus of grade level and content area specialists
- Permits sixth-graders with an opportunity for more specialized facilities
- Supports transition (middle school) between self-contained elementary and departmentalized secondary school
- Places ninth graders with tenth graders who more closely match them based on physical, social, emotional, and intellectual development
- Provides more staff to focus on classes for the college bound
- Provides coordination of all high school curricula under one umbrella
- Permits easier coordination of high school records
- Greater leadership opportunities for fifth graders

Disadvantages:

- Focuses content area specialists in upper grades
- Diminishes some opportunities in special program areas for fifth grade students
- Creates large cohorts for 6th-8th graders, combining elementary schools and disrupting peer groups at a particularly socially vulnerable time
- Possibly creates an environment where academic decline occurs in middle school

Table 2

Summary: PreK-8, 9-12 Grade Level Structuring

Advantages:

- Provides a minimum of four years at each campus
- Requires fewest transitions between campuses during school years without leaving students in a K-12th system
- Encourages maximum continuity of teacher-student relationships
- Contributes to successful articulation between administrative units
- Extends opportunities to monitor learning needs of students for as many as 9 years in the elementary and in middle school years
- Extends time and opportunities for parental involvement, potentially increasing parental involvement in the middle school grades where such involvement has typically declined rapidly
- Supports a neighborhood concept until high school
- Recognizes the four-year high school arrangement
- Provides coordination of all high school curricula under one umbrella
- Greater leadership opportunities for middle school-aged students that promotes self-esteem and leads to fewer behavior problems at the middle school grades
- In some cases, has led to less of a decline in student achievement in the middle grades
- Maximum flexibility in facility utilization
- Maximizes sense of community with the school
- Attendance by 6th-8th grade students has been shown to be better than in a middle school concept
- Minimum peer group interruptions
- Supports smaller cohorts for each grade level
- Allows for cross-grade structured mentoring of younger students by older students

Disadvantages:

- Focuses content area specialists in upper grades
- Diminishes some opportunities in special program areas for middle grade students
- Facilities would need to be retrofitted if existing facilities were converted to such a grade group
- Might not stop an academic decline from occurring upon transition to 9th grade
- Places Kindergarten and 8th grade students in the same school

Table 3

Summary: PreK-3, 4-6, 7-8, 9-12 Grade Level Structuring

Advantages:

- Provides developmentally appropriate setting for PreK-3 students
- Provides a minimum of three years at each of the campuses except 7th-8th
- Contributes to parental involvement
- Provides opportunities to develop student leadership roles at four different levels
- Potentially, establishes smaller elementary campuses
- Contributes to successful articulation between administrative units
- Permits opportunities for special stronger science programs in the middle grades (4-6)
- Permits opportunities for special program areas in the middle grades (4-6)

Disadvantages:

- Fails to recognize developmental stages of children and adolescents
- Lessens a neighborhood concept, since the attendance zones are larger in order to bring in more students from a narrow range of grades
- Recognizes four school transitions – typically considered too many transitions to be ideal
- Utilizes a two-year campus concept, thus reducing parental involvement and student identification with each school
- Does not necessarily provide for a concentration of content area specialists and facilities at the middle school level
- Lessens continuity of student-teacher relationships
- Lessens opportunities to monitor the learning needs of students
- Lessens the provision of specialized facilities for 6th graders

Table 4

Summary: PreK-4, 5-6, 7-8, 9-12 Grade Level Structuring

Advantages:

- Provides developmentally appropriate setting for most students
- Contributes to parental involvement in the earliest grades
- Provides opportunities to develop student leadership roles at four different levels
- Potentially, establishes smaller elementary campuses
- Allows for the four year high school concept

Disadvantages:

- Does not allow for 3 grades at each campus, likely minimizing parental involvement after elementary school
- Lessens a neighborhood concept, since the attendance zones are larger in order to bring in more students from a narrow range of grades
- Recognizes four school transitions – typically considered too many transitions to be ideal
- Lessens continuity of student-teacher relationships
- Lessens opportunities to monitor learning needs of students
- Utilizes a two-year campus concept, thus reducing parental involvement and student identification with each school
- Does not necessarily provide for a concentration of content area specialists and facilities at middle school levels
- Less support for the transition from elementary to middle school
- Older student role models for fourth graders absent

Table 5

Summary: PreK-6, 7-8, 9-12 Grade Level Structuring

Advantages:

- Provides a minimum of three years at each of the campuses
- Encourages continuity of teacher-student relationships
- Contributes to successful articulation between administrative units
- Extends opportunities to monitor learning needs of students
- Extends time and opportunities for parental involvement
- Supports a neighborhood concept
- Provides a developmentally appropriate setting for each age group

Disadvantages:

- Diffuses age specialists
- Does not provide for organization according to adolescent development theories
- Reduces the possibility of access by middle school arrangements
- Ignores the trend towards at least three grades per campus

Table 6

Summary: Unitary Grade Schools

Advantages:

Disadvantages:

- Lessens continuity of teacher-student relationships
- Lessens opportunities to monitor learning needs of students
- Typically, requires many school transitions
- Limits parental involvement and student identification
- Lessens extra-curricular opportunities for students
- Lessens cooperative and special programs
- Lessens parental involvement



RESEARCH BIBLIOGRAPHY

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- Austin, J.C. (1969). A Comparative Study of Two Forms of School Organization For the Early Adolescent in Terms of Pupil Achievement and School Adjustment. Doctoral Dissertation, University of Houston.
- Beauchamp, Marian. (1972). A study of Selected Variables in a Change From Junior High School Organization to a Middle School Organization. Doctoral Dissertation, Syracuse University.
- Bondi, Joseph. (1978). Developing Middle Schools: A Guide Book. Whitehall Company. Wheeling, IL.
- Blyth, D., R. Simmons, and D. Buch. (July 1978). The Transition Into Early Adolescence: A Longitudinal Comparison of Youth in Two Education Contexts. *Sociology of Education*.
- Braddock, Shi- Chang Wu, and Others. (1988). School Organization in the Middle Grades: National Variations and Effects. Baltimore, Md: Center for Research on Elementary and Middle Schools. John Hopkins University.
- Bryan, C. and E. Erickson. (1970). Structural Effects on School Behavior: A Comparison of Middle School and Junior High School Programs. Grand Rapids Public Schools.
- Byrnes, Vaughan and Allen Ruby. (2007). Comparing Achievement between K-8 and Middle Schools: A Large-Scale Empirical Study. *American Journal of Education* 114. The University of Chicago.
- Calhoun, F.S. (1983). Educational Research Service, Inc. Organization of the Middle Grades: A Summary of Research. Arlington, Virginia.
- Caliste, E.R. (1975). Do School Organization Patterns Make a Difference? Unpublished Manuscript.
- Carnegie Council on Adolescent Development, Turning Points: Preparing American Youth for the 21st Century. Education Week. June 21, 1989, pp.22-23.

- Cawelti, Gordon. (Nov. 1988). Middle Schools: A Better Match with Early Adolescent Needs. ASCD Survey Finds. ASCD Curriculum Update. Alexandria, Virginia.
- Combs, H. Jurgen. (2008). Middle School Configuration; Middle School Organizational Structure: A Summary of the Research.
- Compton, Mary F. (1978), A Source Book for the Middle School. University of Georgia.
- Conant, James Bryant. (1960). Recommendations for Educators in the Junior High School Years. Educational Testing Service. Princeton, NJ. Berkely, California.
- Cook, Philip K., Robert MacCoun, Clara Muschkin, Jacob Vigdor. (2007). Should Sixth Grade be in Elementary or Middle School? An Analysis of Grade Configuration and Student Behavior. Terry Sanford Institute of Public Policy, Duke University.
- Curtis, T.E. and W.W. Bidwell. (1977). Curriculum and Instruction for Emerging Adolescents. Addison-Wesley Publishing Company. Reading, MA.
- Education Research Service. (1983). Organization of the Middle Schools. Arlington, Virginia.
- Glissmeyer, C.H. (1969). Which School for the Sixth Grader, Elementary or the Middle School? California Journal of Educational Research .
- Hawkins, J.A., P Chambers, J. Freching, and S. Frankel, and Others. (1983). Grade Organization Patterns in Schools: A Review of the Research. Rockville, MD. Montgomery County Public School. ERIC Document ED 248 609.
- Hess, F., and Others (1978). Organizations of Schools: An Overview of Alternative Grade Level Arrangements. In Issues in Education: A Documented Look at Seven Current Topics. Mimeographed Paper.
- Hopkins, Gary. (2005). Grade Configuration: Who Goes Where? Education World.
- Hyun, Phillip. Will 6th Graders be OK in a Middle School Setting? LO United for Schools. www.lounitedforschools.org
- Johnson, H.M. (March 1982). Grade Organization: A Decision Based on Local District Needs and Resources. NASSP Bulletin.
- Johnston, J.H. and G. Markle. (Feb 1988). What Research Says to the Practitioner About Classroom Groups. Middle School Journal. Fairborn, Ohio.
- Jones, J.J., C.L. Salisbury, and R.L. Spencer. (1969). Secondary School Administration. McGraw- Hill. New York. Pgs. 98-99.

The K-8 Solution: The Retreat from Middle Schools. (2008) Center for Education Reform.
www.edreform.com

Koemer, T.F., Editor. (1985). How Fares the Ninth Grade? A Day in the Life of a
9th Grader. National Association of Secondary School Principals. Reston,
VA.

Kohut, Sylvester Jr. (1980). The Middle School: A Bridge Between Elementary
and Secondary Schools. National Education Association.

Lake, S. (1985). Grade Organization in Secondary Schools, With Particular
Reference to The Junior-Senior High School Model (Grades 7-12 or 6-12).
Redwood City, CA. San Mateo County Office of Education.

Livingston, A.H. (January 1961). Does Departmental Organization Affect
Children's Adjustment? The Elementary School Journal.

Lounsbury, J.H. and G.V. Vars. (1978). A Curriculum for the Middle School
Years. New York. Harper and Row.

Lounsbury, John H. (1996). Key Characteristics of Middle Level School. Urbana,
IL. ERIC clearinghouse on Elementary and Early Childhood Education.
ERIC Document ED 401050.

Miller, G.V. and J.C. Rotter. (1985). The Middle School Counselor. Cranston,
Rhode Island. Caroll.

National Forum to Accelerate Middle-Grades Reform. (2008) Policy Statement on
Grade Configuration. Issue 5. www.mgforum.org

Paglin, Catherine and Fager, Jennifer. (July 1997). Grade Configuration: Who
Goes Where? Northwest Regional Educational Laboratory.

Rankin, H.S. (1969). A Study of the Pre- and Post- Attitudes and Academic
Achievements of Students in Grades 5 Through 10 in a Change From a Junior
High Organization to a Middle School Organization in a Suburban School System.
Doctoral Dissertation. Syracuse University.

Raze, Nasus. (1985). Primary and Intermediate Grade Configurations: A Review
Of Literature. Redwood City, CA. San Mateo County Office of Education. ERIC
Document ED 252928.

Riew, J. (1980). Intermediate Vies Middle Schools. An Analysis of the Relative
Costs- In the Montgomery County Public Schools. Montgomery Public Schools,
Department of Educational Accountability.

Rockoff, Jonah E., and Benjamin B. Lockwood. (2010) Stuck in the Middle: How and
why Middle Schools Harm Student Achievement. Program on Education Policy

and Governance, Harvard Kennedy School.

Rowe, W.H. and T.L Drake. (1974). *The Principalship*. McMillian. New York. Pg. 85.

Sanders, Marvis G. (1997). *Building Effective School- Family Community Partnerships in a Large Urban School District*. Center for Research on the Education of Students Placed at Risk. John Hopkins University and Howard University.

Schmit, Donald J. (December 1982). *Why a Middle School?* Vol. 1, Number 2. Streamlined Seminar. National Association of Elementary School Principals.

Shepard, Gene D. and William B. Ragan. (1982). *Organization Patterns of Schools*. Modern Elementary Curriculum, 6th Edition. Holt, Rinehart, Winston. New York.

Spenceport Central School. (1982). *What are the Educational Advantages and Disadvantages of the Various Patterns of Grade Level Groupings?* Spenceport, New York.

Strickland, H. (1977). *A Study of Selected Variables in a Change from a Middle School Organization in a Northeastern Arkansas City*. Doctoral Dissertation, Ball State University.

Summers, A.A. and B.L. Wolfe. (Summer 1976). *Which School Resources Help Learning? Efficiency and Equity in Philadelphia Public Schools*. IRCD Bulletin, XI.

The NASSP Council on Middle Level Education- *Middle Grade Organization: The Reasons and the Realities*. National Association of the Secondary School Principals. (Oct. 1982). Reston, VA.

Toepfer, C.F. Jr. (March 1987). *Middle Schools Missing Links*, Commentary. Education Week. Marion, Ohio.

Tomlinson, T.M. and H.J. Walberg. (Eds.) (1986). *Academic Work and Educational Excellence: Raising Student Productivity*. Berkeley California. McCutchan.

Turner, J. (1984). *Cognitive Development and Education*. New York. Methuen.

Wang, Margaret C. (1995). *Effective Features of Collaborative School- Linked Services for Children in Elementary School: What do we know from Research and Practice?* National Center on Education in the Inner Cities And U.S. Department Of Education.

Wells, Amy Stuart. (1989). *Middle School Education—The Critical Link in Dropout Prevention*. New York, NY. Urban Education. ERIC Document ED 311148.

White, Leslie Miles. (2007). Incorporating the Middle School: K-8, a better model? Capella University Department of Psychology Dissertation.

Wiles, J. and J. Bondi. (1986). Making Middle Schools Work. Association for Supervision and Curriculum Development. Alexandria, VA.

Williams, T., Kirst, M., Haertel, E., et al. (2010). Gaining Ground in the Middle Grades: Why Some Schools Do Better. Mountain View, CA: EdSource.

Yecke, Cheri Pierson. (2006). Mayhem in the Middle: Why We Should Shift to K-8. Educational Leadership. Volume 63, Number 7. Pgs. 20-25.

Zuehlke, Janis Sellers. (1988). A Texas Middle School in a Time of Restructuring a Naturalistic Study. Doctoral Dissertation.