

Review of Literature on Grade Configuration and School Transitions*

May 2011

This review was conducted with support from Stillwater Area Public Schools



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***We employed strict criteria for choosing the articles to review in this report. More specifically, we only reviewed articles that appeared in peer-reviewed and reputable journals. We did not include articles that were opinion based or those with weak research methods. We also did not include articles that appeared in advocacy journals or were produced by associations which advocate for a specific grade configuration.**

A Review of Literature on Grade Configuration and School Transitions

Introduction

Beginning with the junior high school movement in the 1920s and continuing through the middle school movement in the 1960s, educational researchers have investigated the impact of school transitions and different grade configurations on a variety of student outcomes. In this report, we review the most salient empirical research to date on how school transitions and different grade configurations impact student achievement and behavior, as well as student psychological and social-emotional outcomes.

While our review of the literature is focused primarily on recent research, 2000 to present, we have broadened our sample to include several studies from the 1990s as well as one book from the 1980s because these studies were widely cited in the more recent literature. For example, several researchers cited the 1987 book by Simmons and Blyth titled, “Moving into adolescence: The impact of pubertal change and school context,” so we included it in this review.

We employed strict criteria for choosing the articles to review in this report. More specifically, we only reviewed empirical articles that appeared in peer-reviewed and reputable journals. We eliminated references that were opinion based, not empirically-based, or not peer reviewed and those with poor methodologies. We also excluded articles that appeared in journals that advocated for a specific grade configuration over another (ex. The Middle School Journal) or were produced by associations which advocate for a specific grade configuration. Overall, we reviewed 23 empirically-based peer reviewed articles, one dissertation, one peer-reviewed book, and one article that appeared in a peer-reviewed journal that articulated clearly the history of the different grade configuration movements for context [See Appendix for a summary of each of the articles reviewed in this report].

We found that researchers studying the impact of transitions and grade configurations used a variety of outcome measures. As noted above, researchers primarily focused on student achievement, behavior, and psychological and social-emotional outcomes of adolescents. More specifically, in this review, researchers used the following outcomes to test for significant differences pre- and post-transition and between students in different grade configurations:

- Academic Outcomes
 - Grade point average (G.P.A.)

- Standardized state math achievement scores
 - Standardized state English/ reading achievement scores
 - Standardized state math and reading achievement composite scores
 - Standardized all subjects achievement composite scores
 - Number of failed subjects
- Psychological and Social-Emotional Outcomes
 - Self-concept of achievement
 - Academic & social efficacy expectations
 - Planning for the future
 - Class preparation/ preparedness
 - Participation in extra-curricular activities
 - Independence
 - Social support
 - Likes school
 - Self image
 - Self-esteem
 - Locus of control
 - Daily hassles (pressures)
 - Feelings of anonymity
 - Suicidal thoughts
 - School safety
 - School threat
 - Violence
 - Feeling victimized
 - Overall school level substance abuse
 - Individual substance use
- Behavioral Outcomes
 - Number of absences
 - Suspension rates
 - Overall combined score for infractions
 - Combined low attendance and suspension scores
 - Drop-out rates
 - Attendance rates
 - Probation levels
 - Individual violent behavior

In addition to the above, a group of researchers also investigated differences in teachers' perceptions of these topics based on grade configuration:

- Teacher Perceptions Outcomes

- Student discipline
- Teacher self-efficacy
- Student decision-making opportunities
- Student violence
- Student substance abuse
- Student absenteeism

Furthermore, one research study looked at differences in these school characteristics across different grade configurations:

- School Characteristic Outcomes
 - Financial resources
 - Class size
 - Teacher quality

The following review is divided into sections based on the kind of student outcomes used in the studies: academic, psychological and social-emotional, behavioral, and finally teacher perceptions and school characteristics. In each section, an overall summary of the literature is given, followed by a summary table which includes the data and findings.

The Impact of Transitions and Different Grade Configurations on STUDENT ACHIEVEMENT

Fourteen of the 26 sources in this review focused on investigating the differences in student achievement outcomes between elementary, middle, and junior high school grade configurations and after school transitions. The majority of these studies found that elementary school students did significantly better than middle and junior high school students of the same age in G.P.A., standardized state math scores, standardized state reading scores, and state test composite scores. For example, Simmons and Blyth (1987) found that 7th graders in elementary school had significantly higher G.P.A.s than 7th graders who were in junior high schools. In addition, Poncelet & Metis Associates (2004) and Cook, et al. (2008) found that 6th graders in elementary school did significantly better on state standardized English/Reading exams than 6th graders in middle school.

Rockoff and Lockwood (2010), using a sophisticated projection model, found that 3rd graders slated to continue in elementary grade configurations versus middle school grade configurations would fare better on state math and reading achievement tests than students slated to attend a middle school. They also found that students projected to go to junior high school would fare better than those going to middle schools. Rockoff and Lockwood reported that the transition to middle school would be more harmful for low achieving students than high achieving students. Furthermore, Fink (2010) found that 6th, 7th, and 8th grade students in K-8 schools did significantly better on state math achievement tests than students in middle schools. These findings only held for special education students, however, on state reading scores. On the other hand, two research studies found no significant differences in student achievement outcomes between K-8 schools and middle schools. For example, one research study found no significant differences between 8th graders in K-8 versus 8th graders in middle school on G.P.A. or number of failed subjects (Weiss & Kipnes, 2006). The other study showed no significant differences in 6th grade state math or reading scores between elementary or middle school students (Dove et al, 2010).

Similar to what we found in the literature on grade configuration, the majority of research in this review investigating the impact of school transitions found that students transitioning to another school experience a significant drop in achievement related outcomes. For example, Gutman and Midgely (2000) found that when African American students transitioned to a new school from 5th to 6th grade, their G.P.A. significantly declined. In addition, Seidman et al. (1994) found that transitions at any age had an impact on student G.P.A., whether it was middle or junior high school. Despite these findings, there was one study which showed no significant differences in academic outcomes by transition year. Dove et al. (2010) found no significant differences between student math and reading scores pre- to post-transition for 6th graders.

Although the research reviewed in this report did not show significant advantages for a middle school model in terms of student academic achievement compared to a junior high model or a K-8 model, one study we reviewed investigated the differences in middle school achievement based on

the level of implementation of the Turning Points comprehensive school transformation model. Felner et al. (1997), in their research looking at level of middle school implementation found that students in high implementation schools scored a full standard deviation higher in math and even greater in reading scores than students in low implementation schools. These data suggest that if districts are planning on reconfiguring to middle schools, that they should monitor implementation of the criteria outlined in the Turning Points reforms closely. Unfortunately, these researchers did not compare high implementation schools with other grade configuration schools so it is unclear whether highly implemented models have any advantage over junior high school or K-8 configurations.

Because the research appears to favor a K-8 elementary model, two studies investigated the differences in student achievement between longstanding K-8 schools, newly reconfigured K-8 schools, and middle schools (Byrnes & Ruby, 2007; Maclver & Maclver, 2006). Research from both studies revealed that 8th grade students in established or old K-8 schools had significantly higher state math scores than 8th grade students in either new K-8 schools or middle schools. Neither study found significant differences in achievement between new K-8 schools and middle schools, although both studies showed slight advantages in new K-8 schools. These findings suggest that school districts looking to reconfigure to newly created K-8 school models may not experience significant academic gains, at least not right away.

More research is needed on the differences in culture, relationships, leadership, teaching practices, school size, grade size, demographic differences, and student populations in K-8 schools versus middle and junior high schools. For example, several researchers suggest that some of the differences found in academic achievement in the K-8 models may be due to differences in these other factors rather than on grade configuration per se. For example, Byrnes & Ruby (2007) hypothesized that the differences found in achievement may lie in the differences in the populations that middle schools and K-8 schools generally serve (e.g., Byrnes & Ruby, 2007). In addition, a few researchers found a distinct advantage in K-8 schools because cohort and class sizes were smaller in K-8 schools. Lee & Smith (1993) point out that grade size has been associated with decreased academic engagement and more stratification in achievement by poverty level. Consequently, because middle and junior high schools have higher enrollments per grade than K-8 schools, some of the academic disadvantages may be due to grade size rather than grade configuration. There is also some evidence showing that lower SES students tend to have a harder time academically in larger rather than smaller schools (e.g., Lee & Loeb, 1998; Alspaugh, 1998, Rockoff & Lockwood, 2010).

See Table 1 below for a summary of the research reviewed in this report on grade configuration, school transition, and academic achievement.

TABLE 1: Summary of Research Illustrating Significant Differences in **STUDENT ACHIEVEMENT between Different Grade Configurations & Time of Transition(s)**

Data	Grades Compared	Sig Differences	No Sig Differences	Outcome(s)
Grade Point Average	8 th graders in K-8 vs. Middle School		Weiss & Kipnes, 2006	
	African American 5 th grade vs. 6 th grade (Transition)	Gutman & Midgely, 2000		5 th > 6 th
	Pre-post 5 th transitioning to 6 th grade or pre-post 7 th transitioning to 8 th grade	Seidman, Allen, Aber, Mitchell, & Feinman, 1994		5 th > 6 th ; 7 th > 8 th
	7 th grades in K-8/9-12 vs. K-6/7-9/10-12	Simmons & Blyth, 1987		K-8/9-12 > K-6/7-9/10-12 Significant decrease in G.P.A. whenever a student transitions regardless of grade configuration
Standardized State Math Achievement Score	3 rd graders: K-5, K-6, K-8 Elementary vs. Middle School (projected)	Rockoff & Lockwood, 2010		Elementary > Middle School Middle School < Junior High School
	General and Special ed. 6 th , 7 th , 8 th graders in K-8 vs. Middle School	Fink, LL., 2010		General ed. 6 th grade students in K-8 > Middle School
	6 th graders: no transition (P-6, K-6, and 1-6) vs. first year of transition (6th only, 6-7, 6-8) vs. second year of transition (5-6, 5-7, 5-8)		Dove, Pearson, & Hooper, 2010	
	6th graders in elementary vs. middle		Cook, MacCoun,	

	8 th graders in Old (longstanding) K-8 schools vs. New K-8 schools, vs. Middle Schools	Byrnes & Ruby, 2007	Old K-8 > New K-8 and Middle Schools
	6 th graders in K-8 vs. Middle School	Poncelet & Metis Associates, 2004	K-8 > Middle School
	8 th graders in Old (longstanding) K-8 vs. New K-8, vs. Middle School	Maclver & Maclver, 2006	Old K-8 > New K-8 and Middle Schools
Standardized State English/ Reading Achievement Score	3 rd graders: K-5, K-6, K-8 Elementary vs. Middle School (projected)	Rockoff & Lockwood, 2010	Elementary > Middle School
	6th graders in elementary vs. middle	Cook, MacCoun, Muschkin, & Vigdor, 2008	Middle School < Junior High School
	6th graders in elementary vs. middle	Cook, MacCoun, Muschkin, & Vigdor, 2008	Elementary > Middle School
	General and Special ed. 6 th , 7 th , 8 th graders in K-8 vs. Middle School	Fink, LL., 2010	Special ed. 6 th grade students in K-8 > Middle School
	6 th graders: no transition (P-6, K-6, and 1-6) vs. first year of transition (6th only, 6-7, 6-8) vs. second year of transition (5-6, 5-7, 5-8)		Dove, Pearson, & Hooper, 2010
	8 th graders in Old (longstanding) K-8 schools vs. New K-8 schools, vs. Middle Schools	Byrnes & Ruby, 2007	Old K-8 schools > New K-8 schools and Middle Schools New K-8 schools > Middle Schools

	6 th graders in K-8 vs. Middle School	Poncelet & Metis Associates, 2004	K-8 > Middle School
	8 th graders in Elementary (K-8/K-9/3-8) vs. Middle (4-8/5-8/6-8) vs. Junior High (7-8/7-9) vs. Junior/Senior high (6-12/7-12/8-12)	Wihry, Coladarci, Meadow, 1992	Elementary > Middle, Junior, and Junior/Senior High No differences found between Middle and Junior High
Standardized Math and Reading Test Composite Score	6 th , 7 th , 10 th , 11 th graders: Elementary (K-6, K-7) vs. Middle/Junior High (6-7, 7-8, 6-7, 7-8, 7-9) vs. Secondary (7-12, 8-12, 9-12) vs. Unit (K-12)	Franklin & Glasscock, 1998	6 th graders in elementary and K-12 > Middle school 7 th graders in elementary and K-12 > Middle school 10 th grade in K-12 > Secondary Schools No significant differences in 11 th grade
Standardized All Subjects Test Composite Score	Group 1: 1 K-8 and 1 H.S. vs. Group 2: 1 K-5, 1 M.S., and 1 H.S. vs. Group 3: 3 K-5, 1 M.S., 1 H.S. 8 th graders in Elementary (K-8/K-9/3-8) vs. Middle (4-8/5-8/6-8) vs. Junior High (7-8/7-9) vs. Junior/Senior high (6-12/7-12/8-12)	Alspaugh, 1998a Wihry, Coladarci, Meadow, 1992	Group 1 5 th graders in K-8, 9-12 model > Group 3, 5 th graders in K-5, M.S., H.S. model Elementary > Middle, Junior, and Junior/Senior High No differences found between Middle and Junior High
Failed Subjects	8 th graders in K-8 vs. Middle School	Weiss & Kipnes, 2006	

The Impact of Transitions and Different Grade Configurations on STUDENT PSYCHOLOGICAL AND SOCIAL-EMOTIONAL OUTCOMES

Eight of the 26 sources reviewed for this report investigated differences in student psychological and social-emotional outcomes during periods of school transitions and between students in different grade configurations. Overall, the majority of research showed significant advantages in these areas for students in elementary and K-8 grade configurations versus students in middle school or junior high school grade configurations. For example, Weiss and Kipnes (2006) found that 8th grade students in K-8 schools had significantly higher self-esteem than 8th graders in middle schools. Similarly, Simmons and Blyth (1987) found that 6th and 7th graders in K-8 schools had significantly higher self esteem than students in junior high schools. Furthermore, in a national study (using NELS 88 data) Eccles et al. (1991) found that students in K-8 schools had significantly higher self-concept of their achievement potential, reported significantly lower levels of school threat or violence, were significantly better prepared for class, were absent significantly less often, and reported significantly less substance abuse than students in either middle schools or junior high schools. Furthermore, this national study showed no significant differences in these factors for students in middle schools versus junior high schools.

There were a few areas where research showed no significant differences in grade configurations. For example, Simmons and Blyth (1987) found no significant differences between students in 6th through 10th grade K-8 and junior high school students in the areas of planning for the future or feeling independent. In addition, Weiss and Kipnes (2006) found no significant differences between 8th grade students in K-8 and middle schools in liking school or feeling safe. Lastly, Gunter and Bakken (2010) found no difference in 6th graders' self report in K-6 vs. 6-8 in substance use or violent behavior.

Similarly to what we found with academic achievement, the majority of research reviewed for this report showed that school transitions have a significantly negative impact on students' psychological and social emotional wellbeing. For example, Seidman et al. (1994) found that students reported having significantly lower self-esteem after they transitioned to a new school including transitions between 5th and 6th grade as well as between 6th and 7th grade. Students prior to transitioning to a new school in this study also reported significantly lower levels of threat or school violence and significantly fewer daily hassles or pressures. They also reported significantly higher participation in extra-curricular activities and reported feeling better prepared for class. Despite these results showing disadvantages for students who transition to either middle or junior high schools, there were some positive aspects to transitioning. In the same study Seidman et al. (1994) found that after transitioning to a new school, 6th and 8th graders reported significantly higher levels of social support and academic and social efficacy than 5th graders or 7th graders, respectively.

In Table 2 (below) we summarize the psychological and social emotional findings across the studies.

TABLE 2: Summary of Research Illustrating Significant Differences in STUDENT PERCEPTIONS OF PSYCHOLOGICAL AND SOCIAL EMOTIONAL OUTCOMES between Different Grade Configurations & Time of Transition(s)

Data	Grades Compared	Sig Differences	No Sig Differences	Outcome(s)
Self-Concept of Achievement	National Sample Student Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991		K-8 > 6-8, 7-8, and 7-9 No sig differences found between middle and junior high
Academic & Social Efficacy Expectations	Pre-post 5 th transitioning to 6 th grade or pre-post 7 th transitioning to 8 th grade	Seidman, Allen, Aber, Mitchell, & Feinman, 1994		5 th < 6 th ; 7 th < 8 th
Planning for the Future	6 th through 10 th grade students who went to K-8/9-12 vs. K-6/7-9/10-12		Simmons & Blyth, 1987	
Class Preparation/ Preparedness	Pre-post 5 th transitioning to 6 th grade or pre-post 7 th transitioning to 8 th grade	Seidman, Allen, Aber, Mitchell, & Feinman, 1994		5 th > 6 th ; 7 th > 8 th
	National Sample Student Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991		K-8 > 6-8, 7-8, and 7-9 No sig differences found between middle and junior high
Participation in Extra-Curricular Activities	Pre-post 5 th transitioning to 6 th grade or pre-post 7 th transitioning to 8 th grade	Seidman, Allen, Aber, Mitchell, & Feinman, 1994		5 th > 6 th ; 7 th > 8 th
	10 th graders who went to K-8/9-12 vs. K-6/7-9/10-12	Simmons & Blyth, 1987		K-8/9-12 > K-6/7-9/10-12
Independence	6 th through 10 th grade students who went to K-8/9-12 vs. K-6/7-9/10-12		Simmons & Blyth, 1987	
Social Support	Pre-post 5 th transitioning to 6 th grade or pre-post 7 th transitioning to 8 th grade	Seidman, Allen, Aber, Mitchell, & Feinman, 1994		5 th < 6 th ; 7 th < 8 th

Likes School	8 th graders in K-8 vs. Middle School	Weiss & Kipnes, 2006	
Self Image	6 th and 7 th graders in K-8/9-12 vs. K-6/7-9/10-12	Simmons & Blyth, 1987	K-8/9-12 > K-6/7-9/10-12
Self-Esteem	8 th graders in K-8 vs. Middle School	Weiss & Kipnes, 2006	K-8 > Middle School
	Pre-post 5 th transitioning to 6 th grade or pre-post 7 th transitioning to 8 th grade	Seidman, Allen, Aber, Mitchell, & Feinman, 1994	5 th > 6 th ; 7 th > 8 th
	6 th and 7 th graders in K-8/9-12 vs. K-6/7-9/10-12	Simmons & Blyth, 1987	K-8/9-12 > K-6/7-9/10-12
Locus of Control	National Sample Student Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991	K-8 > 6-8, 7-8, and 7-9 No sig differences found between middle and junior high
Daily Hassles (Pressures)	Pre-post 5 th transitioning to 6 th grade or pre-post 7 th transitioning to 8 th grade	Seidman, Allen, Aber, Mitchell, & Feinman, 1994	5 th < 6 th ; 7 th < 8 th
Feelings of Anonymity	6 th and 7 th graders in K-8/9-12 vs. K-6/7-9/10-12	Simmons & Blyth, 1987	K-8/9-12 < K-6/7-9/10-12
Suicidal Thoughts	6 th graders *self report* in K-6 vs. 6-8	Gunter, & Bakken, 2010	Elementary girls > Middle School girls
School Safety	8 th graders in K-8 vs. Middle School	Weiss & Kipnes, 2006	
School Threat	8 th graders in K-8 vs. Middle School	Weiss & Kipnes, 2006	K-8 < Middle School
Violence	National Sample Student Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991	K-8 < 6-8, 7-8, and 7-9 No sig differences found between middle and junior high
	Pre-post survey of 8 th graders transitioning to 9 th grade in new school vs. 8 th graders staying in same school through 9 th grade	Weiss & Bearman, 2007	Non transitioning < transitioning
Feeling victimized	10th graders who went to K-8/9-12 vs. K-	Simmons & Blyth, 1987	K-8/9-12 > K-6/7-9/10-12

	6/7-9/10-12		
Overall School Level Substance Abuse	National Sample Student Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991	K-8 < 6-8, 7-8, and 7-9 No sig differences found between middle and junior high
Individual Substance Use	6 th graders *self report* in K-6 vs. 6-8		Gunter, & Bakken, 2010
Individual Violent Behavior	6 th graders *self report* in K-6 vs. 6-8		Gunter, & Bakken, 2010

The Impact of Transitions and Different Grade Configurations on STUDENT BEHAVIOR

Nine of the 26 studies we reviewed investigated the impact of different grade level configurations and school transitions on student behavior. Our analysis across studies showed mixed results. For example, Weiss and Kipnes (2006) and Rockoff and Lockwood (2010) found no significant differences in absentee rates between students in K-8 versus students in middle school. In addition, Simmons and Blyth (1987) found no significant differences between students in K-8 and junior high schools in suspension or probation rates. On the other hand, Cook et al. (2008) found that 6th graders in elementary school had significantly lower combined scores for infractions than 6th graders in middle school. Moreover, Fink (2010) found that general and special education students in 6th, 7th, and 8th grades in K-8 schools had significantly higher attendance rates than students in those grades who attend middle schools. Lastly, Franklin and Glasscock (1998) found that 6th, 7th, and 10th graders in elementary schools and K-12 school configurations had significantly lower combined attendance and suspension scores than students in middle or secondary school configurations.

One clear finding across the studies was that school transitions, overall, had negative effects on student behavior. For instance, Arcia (2007) found that 6th and 7th graders who transitioned to new schools had significantly higher rates of suspension after they transitioned. In addition, two studies from Alspaugh (1998a; 1998b) found that in districts with fewer transitions (K-8/9-12) student drop-out rates were significantly lower than in districts with K-5, middle school, and high school configurations. Thus, the more transitions in districts, the higher the rates of student drop-out.

Table 3 below gives a summary of the research findings on the impact of transitions and different grade configurations on student behavior.

TABLE 3: Summary of Research Illustrating Significant Differences in **STUDENT BEHAVIOR between Different Grade Configurations & Time of Transition(s)**

Data	Grades Compared	Sig Differences	No Sig Differences	Outcome(s)
Absences	8 th graders in K-8 vs. Middle School		Weiss & Kipnes, 2006	
	3 rd graders: K-5, K-6, K-8 Elementary vs. Middle School (projected)		Rockoff & Lockwood, 2010	
	National Sample Student Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991		K-8 < 6-8, 7-8, and 7-9 No sig differences found between middle and junior high
Suspension	3 rd graders: K-5, K-6, K-8 Elementary vs. Middle School (projected)		Rockoff & Lockwood, 2010	
	6 th and 7 th graders in K-8 vs. Middle School (Transition)	Arcia, 2007		K-8 < Middle School
	7 th graders in K-8/9-12 vs. K-6/7-9/10-12		Simmons & Blyth, 1987	
Overall combined score for Infractions	6 th graders in elementary vs. middle (projected)	Cook, MacCoun, Muschkin, & Vigdor, 2008		Elementary < Middle School
Combined low attendance and suspension score	6 th , 7 th , 10 th , 11 th graders: Elementary (K-6, K-7) vs. Middle/Junior High (6-7, 7-8, 6-7, 7-8, 7-9) vs. Secondary (7-12, 8-12, 9-12) vs. Unit (K-12)	Franklin & Glasscock, 1998		6 th graders in elementary and K-12 < Middle school 7 th graders in elementary and K-12 < Middle school 10 th grade in K-12 < Secondary Schools
	Drop-Out Rates	Group 1: 1 K-8 and 1 H.S. vs. Group 2: 1 K-5, 1 M.S., and 1 H.S. vs. Group 3: 3 K-5, 1 M.S., 1 H.S.	Alspaugh, 1998a	H.S. students in Group 1 K-8, 9-12 model < H.S. students in Group 2 and Group 3 K-5,

	447 Districts with all different grade configurations	Alspaugh, 1998b	M.S. and H.S. model
Attendance	General and Special ed. 6 th , 7 th , 8 th graders in K-8 vs. Middle School	Fink, L.L., 2010	The more transitions = higher drop-out rates General and Special ed. 6 th grade students in K-8 > Middle School
Probation	7 th graders in K-8/9-12 vs. K-6/7-9/10-12	Simmons & Blyth, 1987	

**The Impact of Different Grade Configurations on
TEACHER PERCEPTIONS OF STUDENTS AND OF SELF AND SCHOOL CHARACTERISTICS**

We found only two studies which investigated the differences between grade configurations on teachers' perceptions of their students and teacher self- efficacy. In addition, we only found one study which investigated the difference in school characteristics by grade configuration.

Regarding differences in teacher perceptions by grade configuration, Eccles, et al. (1991 and 1993) found that teachers in elementary schools reported significantly fewer student discipline issues, student violence, student substance abuse, and student absenteeism than teachers in middle and junior high schools. In addition, in the 1991 study, researchers found no significant differences in teachers' perceptions of student substance abuse, violence, or absentee rates between teachers in middle school or junior high school. Interestingly, math teachers in elementary school reported significantly higher self-efficacy than math teachers in middle schools.

Lastly, Rockoff and Lockwood (2010) found no significant differences between any of the grade configurations on school characteristics such as financial resources, class size, or teacher quality.

Tables 4 and 5 below show the summary of research results across the studies.

TABLE 4: Summary of Research Illustrating Significant Differences in **TEACHER PERCEPTIONS OF STUDENTS AND SELF between Different Grade Configurations & Time of Transition(s)**

Data	Grades Compared	Sig Differences	No Sig Differences	Outcome(s)
Need for Student Discipline	6th grade Elementary School Teachers vs. 7 th grade Middle School math Teachers	Eccles, Wigfield, Midgley, Reuman, Maclver, & Feldlaufer, 1993		Elementary < Middle School
Teacher Self-efficacy	6th grade Elementary School Teachers vs. 7 th grade Middle School math Teachers	Eccles, Wigfield, Midgley, Reuman, Maclver, & Feldlaufer, 1993		Elementary > Middle School
Student Decision-Making Opportunities	6th grade Elementary School Teachers vs. 7 th grade Middle School math Teachers	Eccles, Wigfield, Midgley, Reuman, Maclver, & Feldlaufer, 1993		Elementary > Middle School
Student Violence	National Sample Teacher Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991		K-8 < 6-8, 7-8, and 7-9 No sig differences found between middle and junior high
Student Substance Abuse	National Sample Teacher Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991		K-8 < 6-8, 7-8, and 7-9 No sig differences found between middle and junior high
Student Absenteeism	National Sample Teacher Survey (NELS 88) K-8 vs. 6-8, vs. 7-8, vs. 7-9	Eccles, Lord, & Midgley, 1991		K-8 < 6-8, 7-8, and 7-9 No sig differences found between middle and junior high

TABLE 5: Summary of Research Illustrating Significant Differences in SCHOOL CHARACTERISTICS between Different Grade Configurations & Time of Transition(s)

Data	Grades Compared	Sig Differences	No Sig Differences	Outcome(s)
Financial Resources	K-5, K-6, K-8 vs. Middle School		Rockoff & Lockwood, 2010	
Class Size	K-5, K-6, K-8 vs. Middle School		Rockoff & Lockwood, 2010	
Teacher Quality	K-5, K-6, K-8 vs. Middle School		Rockoff & Lockwood, 2010	

Conclusion

In sum, the majority of studies in this review found that elementary school students did significantly better than middle and junior high school students of the same age in G.P.A., standardized state math scores, standardized state reading scores, and state test composite scores. In addition, most studies in this report showed that when students transition to another school, they experience a significant drop in academic related outcomes. Overall, the literature appears to favor a K-8 model over a middle school or a junior high school model.

Furthermore, the majority of research we reviewed showed significant advantages in the student psychological and social-emotional areas for students in elementary and K-8 grade configurations over students in middle school or junior high school grade configurations. Researchers also showed a significantly negative impact on students' psychological and social emotional wellbeing when students transitioned from one school to another. Analysis on the impact of different grade level configurations on student behavior showed mixed results. One clear finding across the studies, however, was that school transitions, overall, had negative effects on academic, psychological and social-emotional and student behavior outcomes. This suggests that the fewer transitions for students, the better.

Lastly, in the research we reviewed for this report, we found that teachers in elementary schools reported significantly fewer student discipline issues, student violence, student substance abuse, and student absenteeism than teachers in middle and junior high schools. There is no evidence suggesting there are significant differences between any of the grade configurations on school characteristics such as financial resources, class size, or teacher quality.

Despite these findings, authors of these studies caution that more research is needed to explore how school culture, student-teacher relationships, leadership, teaching practices, school size, cohort size, and demographic differences in student populations contribute to the differences seen in elementary school grade configurations versus middle and junior high school grade configurations. This is because several of the researchers suggested that some of the differences found in student academic achievement, psychological and social-emotional wellbeing, and behavior in the K-8 models may be due to differences in these other factors rather than grade configuration per se. What may be more important, then, is a school's organizational culture and teaching practices such as developmentally appropriate practices for early adolescents (Cuban, 1992; Eccles et al., 1993; Felner et al., 1997; Seidman et al., 1994), student-teacher relationships and support for learning (promoted in K-8 by smaller grade size; Eccles et al. 1993), heterogeneous grouping and high expectations for all students (less SES stratification in K-8 versus MS or JH; Lee & Smith, 1993; Lee & Loeb, 2000), and collaborative teacher relationships such as team teaching (Felner et al.1997; Lee & Smith 1993). All of these practices may be implemented within any grade configuration.

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