

# Gaining Ground in the Middle Grades: Why Some Schools Do Better

A Large-Scale Study of Middle Grades Practices and Student Outcomes

### **RESEARCH TEAM:**

#### **EdSource**



Trish Williams, executive director, study project director

Matthew Rosin, Ph.D., senior research associate

Mary Perry, deputy director

Ben Webman, senior data analyst

Kathy Wilson, research assistant

Rebecca Payne, research intern

Kathryn Morgan Woodward, research associate

### **Stanford University**



Michael W. Kirst, Ph.D., professor emeritus, study principal investigator

Edward Haertel, Ph.D., professor, study technical director

### **American Institutes for Research**

Jesse Levin, Ph.D., senior research scientist

### **Special Consultants**

Bill Padia, Ph.D., (retired) deputy superintendent, assessment and accountability, California Department of Education

Robert Balfanz, Ph.D., principal research scientist, Everyone Graduates Center, Johns Hopkins University, advising consultant to the study

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This narrative report is a short summary of a complicated and comprehensive study. For more detail see the Initial Research Report and the Technical Appendices at www.edsource.org/middle-grades-study.html

EdSource

520 San Antonio Road, Suite 200 Mountain View, CA 94040-1217

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# Gaining Ground in the Middle Grades: Why Some Schools Do Better

### **OVERVIEW OF STUDY AND FINDINGS**

In the 2008-09 school year researchers from EdSource and Stanford University conducted a large-scale study of 303 middle grades schools in California. The team surveyed 303 principals, 3,752 English Language Arts (ELA) and math teachers in grades 6-8, and 157 superintendents of the districts and charter management organizations that oversee the schools.

The sample of schools included grades 6-8 (50%), K-8 (24%), and 7-8 (26%). Half of the schools served predominantly low-income student populations and half served predominately middle-income populations. Twenty-seven of the schools were charters.

The three separate surveys explored 10 broad domains of effective middle grades practice, and included over 900 items combined. Questions focused on concrete, actionable practices and policies and were drawn from an extensive review of middle grades research and theory as well as current state and federal policy.

The study analyzed the reported district and school practices against spring 2009 scores on California's standards-based tests in ELA and math in grades 6, 7, and 8 taken by the close to 204,000 students in our sample. Multiple regression analyses controlled for student demographic differences. One set of analyses relied on a longitudinal student data file to control for three years of prior student achievement to determine which reported practices by middle grades educators were most strongly associated with schools that showed gains or growth in student scores over what would have been predicted.

Gaining Ground in the Middle Grades is one of the largest studies of its kind conducted on middle grades educational practices and their relationship to student outcomes. The major contribution of our study is the set of specific actionable practices that middle grades educators and leaders can implement now by making smart, strategic choices.

After controlling for student demographics, what did this study find?

Among middle grades schools serving very similar students in terms of socio-economic background, parent education level, and ethnicity, some schools are doing much better than their peers at improving student outcomes in ELA and mathematics.

What differentiates the higher-performing schools most from the lower-performing schools is a shared district and schoolwide culture that

- places its primary focus on improvements in academic outcomes for all students, from the lowest performing to the highest;
- designs its instructional program to prepare all students for a rigorous high school education.

This focus is reflected in how district and school educators set measurable goals for improvement, communicate with students and families about the relationship of middle grades achievement to future goals, and make improved student outcomes a part of educator performance evaluations. It is also reflected in the intensity and coherence with which the educators align school curricula, assessments, and instruction to the state's academic standards; how assessment data are reviewed and analyzed to improve instruction and learning; and how both required and voluntary academic interventions are implemented to proactively keep students on track.

This study <u>did not</u> find a consistent or strong association between student outcomes on standards-based tests and school grade configuration or organizational models of teachers and instruction.

This Narrative Summary provides the reader with a broad overview of the study's methodology, limitations, and findings. We conclude with implications of our findings. For more detail on the numerous high-impact and actionable practices and policies identified in our study, go to page 8 of this Narrative.



Middle grade schools that are outperforming their peers with similar students are doing so with a full-court organizational press on improved student outcomes. That pressfrom including student outcomes in educator evaluations to ensuring teacher common planning time for discussions of student assessmentreflects a significant school culture shift and is focused on preparing students for the future.



## Why Are Middle Grades Outcomes So Important?

here has been a great deal of focus in recent years on high school

It is clear from this study that there are school and district practices that have a significant impact on student outcomes regardless of student background.

- As expectations for a more highly educated American citizenry rise, what happens in the middle grades matters more now than ever. That is because:
- It is in the middle grades where many students begin to lose ground in key subject areas such as mathematics. In California, which educates one in every eight students in grades 6 through 8 in the United States, student achievement in mathematics in any given year is lower in the middle grades than in the elementary grades. Although California has made much progress in recent years in improving the middle grades performance levels of its students, according to data published by the California Department of Education (CDE), two-thirds of 4th graders in California scored proficient or advanced in mathematics in 2009, compared with only 43% of 7th graders. Nationally, most states see a dip in middle grade proficiency levels on the National Assessment of Education Progress (NAEP) compared with elementary levels.
- Middle grades are the last best chance to identify students at risk of academic failure and get them back on track in time to succeed in high school. Recent data analyses in California (Kurlaender, Reardon, et al. 2008; Zau and Betts, 2008) show that many students at the greatest risk of high school failure could be identified early—during the middle grades and the late elementary years—by their grades, attendance, behavior, and test scores. A June 2009 policy and practice brief by Robert Balfanz, which looked at students in Philadelphia schools, found that in high-poverty environments a student's middle grades experience strongly impacts the odds of

- graduating from high school. Again, the more "off track" indicators a student has, and the fewer opportunities the school provides for intervention and correction, the more likely that student will not graduate from high school, much less enter a college preparatory curriculum there.
- Success in key subjects in the middle grades is a strong predictor of success in high school and beyond. In California, students' scores on middle grades standards-based tests in math and ELA can signal their chances of passing the California high school exit exam, which they first take in 10th grade. Further, their test scores in math often determine their math placement when they begin high school, which has implications for science placement, and consequently for completing the requisite rigorous college preparatory coursework needed for admission to the University of California and the California State University systems.

The past two decades have seen the release of many reports stressing the importance of the middle grades. All have focused to one degree or another and with more or less specificity—on the broad concepts of developmental responsiveness (to young adolescent needs), social equity (ensuring that all students are encouraged and supported to achieve at their full potential), and academic excellence or rigor (consistent with standards-based instruction) as central tenets of their recommendations.

But it has only been very recently that any research or analysis has been conducted on middle grades student outcomes, and even less has been conducted on the relationship of various middle grades practices and policies to improving those outcomes.

**WHY NOW?** The past few years have witnessed a global and national economic crisis. At the same time that public expectations for a better educated workforce are rising, state budgets to provide the funding for K-I2 education are getting slashed across the country and in few places more than California. While education funding from states is declining, federal education funding opportunities are increasing and civic groups are re-examining their opportunities with local sources. We appear to be entering a "new normal," where for many years ahead we will have to increase our seriousness about doing more with less. On the up side, the crisis is causing individuals and institutions alike to rethink and justify their priorities and to be open to new goals and new ways to accomplish important objectives.

Middle grades educators and their students, and their efforts and success, are important. This EdSource study makes a contribution to the field by documenting the broad range of traditional and newer middle grades policies and practices that are in place in California, and by identifying which of these practices and policies differentiate the higher-performing schools from the lower-performing schools—serving similar student populations—on standards-based tests.

### This Study's Research Question:

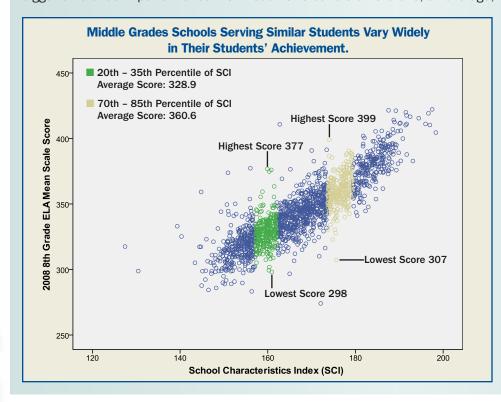
Why do some middle grades schools clearly outperform others on standards-based tests even though they serve a similar student population?

While it is widely accepted among educators that much of the difference in student outcomes among schools is directly related to student background (or some might say zip code), it is less widely acknowledged that there is great variation in student performance even among schools serving a very similar student population.

This difference is striking—and in many ways, a reason for hope. It is clear from this study that there are school and district practices that can have a significant impact on student outcomes regardless of student background.

#### Variation in Middle Grades Schools' Performance

The following scatter plot places all middle grades schools in California on a graph with an index score for socioeconomic status (SCI) running along the x-axis and average school-level student scores on the 8th grade ELA standards test along the y-axis. The plot shows that student test scores clearly rise as family education and socio-economic status (SES) increases. However, looking at the two narrower bands of schools highlighted on the graph, one can see there is a bigger difference in performance within each SES band than there is, on average, between the two groups of schools.



All the schools in the green band on the left serve a predominantly lower-income student population yet their school-level mean test scores vary by 79 points from the highest-performing schools at the top of the band to the lowestperforming schools at the bottom. For the yellow band on the right, which includes schools that serve a predominately middle-income student population, the school-level mean test scores vary by 92 points from the highest-performing schools to the lowest-performing schools. However, the difference between the average school-level mean test scores in these two bands of schools is only 32 points!

Source: California Department of Education, 2008 Standardized Testing and Reporting (STAR) Program

### **About This Study**



We surveyed thousands of district and school educators regarding just over 900 different actionable practices and policies. We aggregated the responses up to the school level, then analyzed those responses against school mean scale scores on the California Standards Tests for ELA and math. The multiple regression analyses we ran on these two massive data files (survey responses and student test scores) allowed the team to see which reported practices

were positively and significantly associated only with higher student test scores and not with lower student test scores. The regressions controlled for student background and other relevant factors. One set of the regressions used a longitudinal student file to control for three years of prior student test scores, then identified practices associated with schools that had made gains on predicted standards test scores. (A more technical explanation can be found in the Initial Research Report and the Technical Appendices.)

Of the 900+ survey items, we found close to one-third of them to be positively and significantly associated with higher student performance. Together they complement each other and add up to a cohesive interrelated set of district and school practices and policies. They reflect concrete, actionable practices—which constitute a sort of blueprint—that higher-performing schools are using to improve their students' standards-based scores over what would have been predicted for those students.

### **Distribution of Participating Schools by Region in California**



### WHAT DISTINGUISHES THE STUDY

### The Sample

Our sample of middle grades schools reflects differences in district configuration and size, as well as the geographic diversity of California.

The research team chose to study the bi-modal sample of schools illustrated in the previous scatter plot: Half of the schools serve predominantly lowincome students and half serve predominately middleincome students. The student demographic profiles vary considerably between the two groups, and within each socio-economic group their schoolwide student performance also varies greatly.

We recruited all 528 schools within those two SES bands and we were able to garner full participation from 303 schools, more than half from each band.

California has a diversity of grade configurations and we chose to study them all: approximately 50% of the 303 participating schools were grades 6-8, 26% were grades 7-8, and 24% were grades K-8. We also included charter schools that fell within our sample parameters: 27 participated, some independently operated and some in charter management organizations.

### The Methodology

We conducted a large-scale survey to answer the research question. The research team obtained completed surveys from 303 principals of middle grades schools; 3,752 of their ELA and math teachers; and I57 of their district or charter management organization (CMO) superintendents.

The surveys were extensive, including more than 900 items focused on concrete, actionable educational practices and policies in place at the school and in its district regarding the middle grades. Survey questions were neutrally phrased and most questions allowed responses along a range of I to 5 to indicate level of agreement or intensity of implementation.

### **Study's 10 Study Domains of Practice**

- Intense Focus on Academic Outcomes
- Standards-Aligned Instruction & Curriculum
- Use of Data to Improve Instruction & Learning
- Proactive Academic Interventions
- Teacher Competencies, Evaluation, & Support
- Principal Leadership
- Superintendent Leadership & District Support
- School Environment
- Organization of Teaching & Instruction
- Attention to Student Transitions

The survey questions covered I0 broad domains or areas of effective middle grades practices. The research team generated these IO domains from a review of middle grades research and reports over the past two decades, plus related state and federal policies. The 900+ survey questions were clustered together by topic into subdomains under each of the I0 domains.

#### **The Analysis Plan**

The unit of analysis was the school. Teacher responses were aggregated to the school level and analyzed with the principal's responses and with the district/CMO superintendent responses.

The study had seven dependent variables: California Standards Tests (CSTs) in ELA grades 6, 7, and 8; General Math CSTs in grades 6, 7, and 8; and Algebra I CSTs in grade 8. Our sample had test scores from close to 204,000 students.

Two sets of regression analyses were conducted, one based on cross-sectional test results and the other using longitudinal student data. After student demographic differences and other relevant factors were controlled for, one set of analyses examined school-level reported practices against 2009 school-level standards test scores. The second set of analyses used a data file with longitudinal student test scores going back three years for the students in our sample to generate a 2009 "predicted" mean test score for the students in each school based upon their prior achievement. These analyses identified which school and district practices were most strongly associated with student achievement growth or gains beyond the predicted levels.

### **Limitations: What This Study Is Not**

While the study identifies characteristics associated with higherperforming middle grades schools, the reader should remember that these analyses cannot establish cause-and-effect relationships between practices and outcomes.

The study covered a broad range of middle grades policies and practices. It did not evaluate any particular middle grades program or philosophy, nor is it a study of middle grades classroom pedagogy.

Equally significant, the outcome measures used in this study are limited to scores on standards-based state tests in English Language Arts (ELA) and math. This study does not analyze outcomes in other subject areas, or pertaining to other important aspects of school effectiveness such as student engagement, attendance, or health.

Surveys are by nature "self reports" by the educators who complete them. The study team did not conduct site visits to verify implementation of the practices reported by responding superintendents, principals, or teachers. To increase confidence in the validity of responses, about onethird of the questions were asked of at least two of the three categories of respondents. The team looked for consistency of responses between levels and required high teacher participation rates from each school: Over half the 303 schools had 100% teacher response rates and the mean for all schools was 88%. An analysis checked the consistency of teacher responses within schools.

The study considers only California Standards Test outcomes for schools as a whole. Special education teachers were not surveyed, and the outcomes studied do not include the California Modified Assessments (CMAs) or the California Alternate Performance Assessment (CAPA). And although some items pertain to practices specific to the education of English learners, this study does not examine the CST outcomes of EL students separately, or the CST outcomes of any other student group reported separately under the federal No Child Left Behind law.

### THE FINDINGS

# **Making Academic Gains in the Middle Grades Takes a Full-Court Organizational Press**



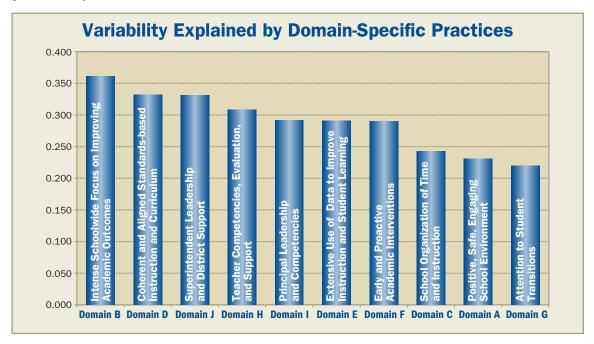
he study reveals several policies and practices that correlate with higher educational professionals—superintendent, principal, and teachers—play at each actions are as reflected in their reported perceptions, policies, and practices.

The practices reported here are phrased as they were in the actual surveys.

### FINDING: An intense schoolwide focus on improving academic outcomes most distinguishes higher- from lower-performing middle grades schools.

This study domain was more significant than any other in every analysis we ran: longitudinal and cross sectional, and for the total sample of 303 schools, as well as the subsamples of schools serving predominantly lower-income and middle-income

families. Policies and practices related to this area reflect a level of seriousness about the importance of improving student outcomes that implies a shift in the traditional middle grades mission.



This study included a longitudinal analysis that measured student test score gains as well as a crosssectional analysis based on 2009 school-level test scores. The reported practices that correlated most strongly with higher schoolwide student achievement were consistent and complementary across both analyses. Additional information is available in the Initial Research Report.

### **Effective Practices That Distinguish Higher-Performing Schools**

### Setting measurable goals for improved student outcomes on standards-based tests.

The principal clearly communicates expectations for improved student outcomes and sets measurable goals.

Improving student outcomes is an important goal for all students regardless of proficiency level and for every grade and core subject area.

Meeting and exceeding state and federal accountability targets is a top priority for the school.

Grade and subject matter teams set goals for student achievement; and the school sets measurable goals for improvement on interim benchmark tests.

### A shared school mission to prepare students academically for the future.

Educators regularly communicate to students the importance of middle grades achievement to high school and to future goals.

The school's instruction and curricula are designed to prepare all students to leave the middle grades:

- with strong foundational academic and study skills;
- on track to pass the California High School Exit Exam (CAHSEE); and
- ready to begin taking courses required for college admission.

### Adults are held accountable and take responsibility for improved student outcomes.

The superintendent's annual evaluation is based to a considerable or great extent on middle grades student outcomes.

The superintendent also reports being able to negotiate teacher contracts that place a priority on improved student achievement.

Survey Statistic: Union Contracts Only 65 of 157 superintendents agreed they could negotiate teacher union contracts that place a priority on improved student achievement.

Principals report being evaluated by the superintendent based on student success.

Teachers take responsibility for improving their students' achievement, and strongly agree that the school principal:

- arranges for evaluation of their skills by teacher
- ensures that evaluations are substantive and meaningful;

- has clear expectations that students will meet academic achievement goals; and
- holds teachers accountable for using common planning time to focus on student achievement.

### The school expects students and parents to share the responsibility for student learning.

In higher-performing schools, teachers report that they actively inform students and parents about the importance of middle grades academics to students' futures.

The school has requirements or contracts for parent participation.

### Survey Statistic: Outcomes and Performance Evaluations

Only slightly more than half of the superintendents (52%) said they were evaluated to a considerable or great extent on performance on standards tests at the middle grades and even fewer on preparation of middle grades students for high school. Only 5% of principals and 24% of superintendents reported salary adjustments based in part on improvements in student achievement. This practice was not significantly related to student outcomes in this study.

### Was there a difference in which practices mattered most for schools in different socio-economic bands of the sample?

This study looked at two groups of schools that were selected largely on the basis of student characteristics, as described here.

Student Demographics/ Background	20th–35th Percentile SCI Band (144 Participating Schools)	70th–85th Percentile SCI Band (159 Participating Schools)	Middle Grades Schools Statewide
African American	10.0%	4.9%	7.1%
Hispanic	67.7%	25.0%	46.1%
White	13.2%	55.9%	33.2%
Socioeconomically Disadvantaged	75.6%	29.1%	54.1%
English Learners	26.6%	6.5%	18.0%
Parental Education - Less than High School	27.5%	5.0%	16.7%
Parental Education - College Graduate	8.4%	25.8%	15.9%

The practices and policies that differentiated higher- from lower-performing middle grades schools were for the most part the same across both groups of schools. A few practices were associated only with higherperforming schools in the lower student socio-economic sample of this study. These pratices include:

- The principal reported that the district will support his/her decision to replace the school administrative and/or instructional leadership team if needed.
- Principals reported that school staff members personally contact students who cut classes, require detention for tardy students, and give classroom and schoolwide recognition to excellent attendance.
- Principals reported that the school uses student progress and achievement data as part of teacher evaluations.
- Teachers reported that the principal assigns teachers to ensure students with the greatest need are served well.



### FINDING: In higher-performing schools, curricula and instruction are closely aligned with state academic standards.

Based on responses to the combined 900+ questions on our three separate surveys, it appears that standards-based policy reforms that began in California in the early 1990s have penetrated from the district through to the classroom. In this particular area of our study, what seems to most differentiate the higher-performing schools from the lower-performing ones is not whether they engage in any of these practices, but whether a high level of reported intensity accompanies the implementation of most practices.

### **Effective Practices That Distinguish Higher-Performing Schools**

### Implementation of standards-based curricula and instructional practice is tight and coherent.

The district leads the adoption of districtwide middle grades curricula aligned with state academic standards. Teachers report that the district communicates high expectations that instruction will closely align with those standards.

The principal follows through by communicating expectations that the school's ELA and math teachers will use the school's adopted curriculum programs daily.

More specifically, the principal ensures the school's ELA and math instruction is:

- closely guided by state academic standards and state-adopted curriculum programs;
- takes into account English Language Development standards; and

emphasizes select key standards in each grade and core subject.

Teachers report collaborating frequently to:

- discuss curriculum pacing, scope, and sequence;
- develop common benchmarks and assessments;
- discuss how common benchmarks and assessments relate to instruction; and
- ubreak down" the state content standards to identify prerequisite student skills.

### Cohesive policies and strategies are implemented to further strengthen student learning of ELA and math in 7th and 8th grades.

For ELA, higher-performing schools report a structured program to promote literacy across the grade 8 curriculum and instructional strategies for writing, and teachers report holding students accountable for reading outside of class.

For math, teachers report the school considers a wide range of factors in placing students into general mathematics classes in grades 7 and 8, including:

- explicit criteria set by the school;
- scores on a placement or basic skills test;
- teacher recommendation;
- prior student academic performance;
- student CST scores:
- a review by the schools' lead math teachers; and
- a review by an administrative team to ensure the widest appropriate access for all students.



### California's K-12 Standards Matter for Students

Student performance on middle grades standards-based tests is important because student placement recommendations in math in 8th grade and in high school are based in part on middle grades standardsbased test results. In addition, students who master the subject-matter academic standards in the middle grades are more likely to be prepared for a rigorous high school curriculum.

# FINDING: Higher-performing schools use assessment and other student data extensively to improve student learning and teacher practice.

For the most part, very few principals or teachers reported "never" using student assessment data to inform their work. Instead, higher-performing schools appeared to differ from lower-performing ones in the frequency of their data use (throughout the year versus a few times a year) and in how many and what ways they use the data (to improve practice, to diagnose student learning needs, to set goals, etc.).

# **Effective Practices That Distinguish Higher-Performing Schools**

## The district plays a strong leadership role regarding the provision and use of student assessment data.

Principals and teachers report that the school district:

- provides schools with timely CST student achievement data and English language development test data for EL students;
- provides a computer-based system to enable school staff members to access and review student data;
- offers adequate staff training to enable effective use of the data management software;
- uses student achievement data to identify needs for improved teacher practices and to identify and recognize exemplary teacher practices;
- communicates clear expectations that instructional decisions will be data driven;
- has standards-based benchmark tests in each grade and subject that it expects all schools to administer;
- analyzes benchmark test data and reports back promptly to the school; and
- uses student outcomes to influence school and instructional improvement.

# Facility with and frequent use of assessment data indicates a changing role for principals in higher-performing schools.

The principal personally uses assessment data extensively and in a variety of ways to:

- set goals for the achievement of selected students;
- develop strategies to help selected students reach achievement goals;
- follow up on the progress of selected students;
- examine teachers' practices and content knowledge;

- determine the professional development needs of individual teachers, or of all teachers in a subject area; and
- identify areas for schoolwide improvement.

The principal meets throughout the year with individual teachers, teachers by grade level, English and/or math teachers by department, and other school administrators to review CST results and benchmark test results, including for student subgroups.

# The extensive use of assessment data by teachers in higher-performing schools signals a culture shift with student outcomes as the focus.

Teachers report frequent use of assessment data to:

- evaluate individual student achievement—and achievement by subgroup—and set goals;
- help students see steady and measurable progress in their learning;
- identify and correct gaps in their instruction; and
- analyze student assessment data to identify effective instructional practices.

Teachers report receiving CST data:

- individually for all their students;
- disaggregated by specific skill/academic content for all their students;
- disaggregated by student subgroup (e.g., racial/ ethnic, EL) for all their students; and
- in a summary for all students across the grade level(s) they teach.

Teachers report the school uses annual student standards-based assessment scores for placement, promotion, and/or intervention.

Teachers frequently administer:

- benchmark assessments to determine whether students are meeting particular academic standards;
- diagnostic assessments to determine what students know and the nature of their misconceptions; and
- classroom-based assessments, which assess students throughout a course and guide instruction.

Teachers and principals strongly concur that the school has an instructional improvement plan in place and assesses the effectiveness of the plan on an ongoing basis.

### Survey Statistic: District Role in Data Access

Only 163 of 303 principals surveyed strongly agreed that the district provides a computer-based system to enable school staff members to access and review student data. Only 63 strongly agreed that the district provides adequate training to school staff members to enable effective use of the data management software.

### District Use of Student Achievement Data

160 of 303 principals agreed that their school district uses student achievement data to identify needs for improved teacher practice.



Attention to **English Learners Higher-performing** middle grades schools pay thoughtful attention to the assessment, academic placement, and intervention support for English learners to maximize both their subject content learning and their English proficiency.

### FINDING: Higher-performing middle grades schools emphasize early identification and proactive intervention for student academic needs.

Higher-performing schools appear to recognize that the middle grades are the last best chance to get struggling students on track for success in high school, and they don't have many years to accomplish that objective. The schools have both mandatory and voluntary intervention programs in place, and use classroom time and out-of-school time to conduct them.

### **Effective Practices That Distinguish Higher-Performing Schools**

### Attention is paid to the assessment and careful placement of EL students.

Districts expect the school to consider a range of factors when placing non-newcomer EL students in ELA and math classes, including:

- amount of time in a California school;
- language proficiency in English;
- proficiency in native language;
- knowledge of academic subjects;
- previous academic performance as demonstrated by class grades;
- recommendations from prior school/teacher;
- scores on California English Language Development Tests (CELDT), California Standards Tests, and other district assessments; and
- input from parents.

School administrators and teachers review prior CELDT scores and other English proficiency information for entering EL students, and EL students with less than reasonable fluency receive more instructional time in math and English, while those with greater fluency have more exposure to the full curriculum.

### The records of entering students are reviewed thoroughly for possible warning signs of academic vulnerability and need for support.

Teachers report that school administrators and teachers review cumulative records (CST scores, grades, attendance, and behavior reports) for students entering the middle grades. They follow up by communicating with elementary teachers about any student concerns and by implementing classroom and intervention strategies to address academic

weaknesses among incoming students. (Note: This was the only positive and significant practice from Domain G: Attention to Student Transitions.)

### Subject area teachers, intervention teachers, and parents meet to develop and monitor student intervention plans.

The principal ensures common planning time is available for ELA and math teachers to meet with intervention teachers to coordinate instruction.

Teachers report that teachers, staff members, and parents meet to develop intervention plans for:

- individual students at risk of failure in the current year;
- individual students identified for intensive intervention (two or more years below grade level); and
- individual EL students.

### A comprehensive range of required and voluntary strategies is used to intervene on behalf of students who are two or more years below grade level, or at risk of failure in the current year.

The school uses a range of required intervention strategies for these students:

- required extra instructional time during the regular school day, perhaps in place of an elective;
- short-term required interventions that run concurrent with class;
- required intervention time outside the regular school day; and
- required intersession or summer courses.

The school provides at least one form of voluntary academic support for students at risk of failure in the current year, such as:

- voluntary academic support offered during nonclassroom time (e.g. lunch, after school);
- programs like Advancement Via Individual Determination (AVID); and
- an online tutorial or intervention program.

Teachers report using differentiated teaching for individuals or groups of students during regular instruction and flexible student groups in the classroom.



### FINDING: Every role in a professional community of educators is important to making gains in middle grades student outcomes.

Practices by teachers, principals, and superintendents can be found throughout all IO areas examined in this study, but in addition we created a separate domain of practice for each of these roles. This study affirms that each of these roles is important to the challenge of improving student outcomes in the middle grades. Teachers have a central classroom role, with the most direct contact with and influence on students. But each teacher can only interact with a limited number of students in a year; in addition to teachers' classroom effectiveness, according to our study, their collective actions within a school help to "scale up" their

capacity to improve student achievement. Moreover, for all teachers in the school to have the most impact, they need a principal who drives student achievement gains by setting goals, aligning staff members and programs, maintaining a positive campus environment, supporting teacher effectiveness, and getting needed resources and support from the district. The higherperforming schools in our study also had superintendents who set high expectations and were held accountable for meeting them—and who, in support of those expectations, negotiated specially designed teacher contracts and provided essential resources.

### FINDING: Leadership of the superintendent and support from the district were strongly associated with higher student outcomes.

### **Effective Practices That Distinguish Higher-Performing Schools**

Higher outcomes in middle grades schools were associated with superintendents who reported that the district functions well across many dimensions. Superintendents were more likely to report:

- highly skilled district staff members in curriculum and instruction, in financial management, and at working with middle grades school sites;
- an effective school board; and
- constructive relationships with employee unions.

Superintendents were more likely to:

- be evaluated in part on middle grades academic
- emphasize improving achievement across all CST levels and closing CST subgroup achievement gaps;
- have the district lead decisions about curriculum adoption;
- communicate high expectations that instruction will closely align with state standards;
- provide schools with timely CST, CELDT, and district benchmark data;
- provide a computer-based data system and adequate staff training to use it;
- provide useful professional development for teachers;
- emphasize early identification of students needing academic support; and
- provide the financial and human resources necessary for the school to meet its goals.



FINDING: The changing role of the principal in driving student outcome gains, orchestrating school improvement efforts, and serving as the linchpin between district and teaching staff members, was documented in multiple ways in this study.

# **Effective Practices That Distinguish Higher-Performing Schools**

# Higher-performing middle grades schools were more likely to report that the principal:

- is evaluated on the effectiveness of academic interventions and on improving student performance on district benchmark tests and CSTs;
- regularly communicates the importance of high expectations for student achievement and holds teachers accountable for using common planning time to focus on student achievement;
- ensures a clean, safe, and disciplined school environment;

- has been trained in the evaluation of instruction for EL students;
- expects the school's teachers to use the adopted curriculum programs frequently;
- uses student assessment data extensively and in multiple ways to improve student learning and teacher practice;
- meets with teachers individually, by grade, and by subject to review CST and benchmark test results; and
- ensures that common planning time is available for subject area teachers to meet with intervention teachers to coordinate instruction.

FINDING: Teachers with strong competencies, substantive evaluation of their practice, and adequate availability of support, time, and resources work collectively to improve student outcomes schoolwide and individually to improve instruction.

# **Effective Practices That Distinguish Higher-Performing Schools**

Principals in higher-performing schools are more likely to strongly agree that a high proportion of each school's ELA and math teachers have the following characteristics:

- ability to use student assessment data to improve learning;
- knowledge of California state standards;
- fit well into the school culture;
- ability to raise student achievement;
- strong subject area knowledge;
- ability to map curriculum standards to instruction;
- are likely to remain in the teaching field;
- enjoy teaching at the middle grades level;
- understanding of adolescent developmental issues;
- taught at the school the previous year;
- ability to collaborate effectively with peers;
- ability to make personal connections with students;
- well prepared by their teacher credential program (new teachers); and
- have expertise in working with EL students.

The majority of the school's teachers strongly agree that the middle grades is currently their first choice of teaching assignment.

Also, teachers report they strongly agree that the principal:

- understands and acknowledges excellent teaching;
- arranges for evaluation of their skills by teacher leaders:
- ensures that evaluations of their teaching are substantive and meaningful;
- ensures that they receive effective professional development to improve instruction; and
- builds strong relationships with them and with other staff members.

Principal and teachers both report that the district provides useful professional development for teachers.

The principal reports the school allocates a considerable amount of common planning time per month in 7th and 8th grade for ELA and math teachers.

Teachers report working together collectively as well as individually in their classrooms to improve practice with the goal of improved student outcomes.

Survey Statistic: Teachers Grow to Love the Middle Grades

Of the 3,752 teachers responding to the survey, only 1,610 entered teaching with the intention of working with middle grades students, but 3,248 now report the middle grades as their first choice of teaching assignment.

FINDING: The school's environment and organization of time and instruction were not strongly associated with improved student outcomes, although some practices were associated with higher-performing schools.



Kids want to go to schools where teachers want to go. Students are the beneficiaries of the school's being a good place to both work and learn. A positive and engaging campus is important for teachers and students alike, and often a central tenet in most reports on the middle grades. Therefore, this study included two research domains and numerous questions about the campus environment and the internal instructional organization of middle grades schools, including practices intended to build supportive adult-student relationships. These two domains of practice correlated less strongly with improving standards-based test outcomes than the other domains studied in almost every analysis. However, some of the practices in these two domains stood out as strongly associated with higher-performing schools.

### **Effective Practices That Distinguish Higher-Performing Schools**

Teachers report that the principal ensures a clean, safe, and disciplined school environment.

The principal reports (and teachers confirm) that he/she enforces a comprehensive set of strategies:

a requirement that students maintain minimum performance standards (e.g., in terms of behavior, academics, participation) to remain at the school;

- a clearly defined dress code that is strictly enforced;
- a strictly enforced, zero-tolerance policy for drugs and weapons on campus;
- a strictly enforced, zero-tolerance policy for any type of bullying;
- the presence of adult supervision during all passing and lunch periods;
- continuous monitoring, by teachers and administrative staff members, of student behavior to identify students in need of intervention; and
- incentives (e.g., front of line passes, parties, or special events) to reward students for positive behaviors.

The principal reports that a high proportion of students participate at the school in:

- one or more extracurricular activities;
- course electives (music, drama, art, dance); or
- course electives (exploratory wheel or mini-courses).

Principals report that a considerable amount of time is allocated per month for common planning time in grades 7 and 8 for ELA and math teachers and that the school exceeds the state's minimum annual requirements for instructional minutes and days.

### Teachers report:

- there is consistent schoolwide focus on, and communication with students and parents about, attendance and behavior;
- the school clearly communicates rules and policies on student behavior to students and parents;
- excellent behavior and/or attendance by students earns classroom and/or schoolwide public recognition;
- the importance of attendance and the consequences of frequent absenteeism, such as academic failure, are clearly communicated to students and parents;
- little time in class is spent managing student behavior; and
- the school develops strategies to address student behavior and/or attendance issues.

### FINDING: No clear association was found between grade configuration or models of instructional organization and higher school performance on standards-based tests.

This study surveyed the 303 schools in its sample to document the following commonly used or recommended middle grades practices:

- grade configuration (K-8, 6-8, and 7-8);
- classroom organization strategies (self-contained classrooms, one teacher for an English/history block and one for math/science, separate teachers for each core subject, etc.); and
- internal organizations designed to encourage strong adult-student relationships (such as vertical looping, advisory periods, and small learning communities.)

After accounting for specific school policies and practices, no single grade configuration was consistently associated with higher performance on the state's standards-based tests in ELA and math. Both more effective and less effective policies and practices were found in schools with every grade configuration studied.

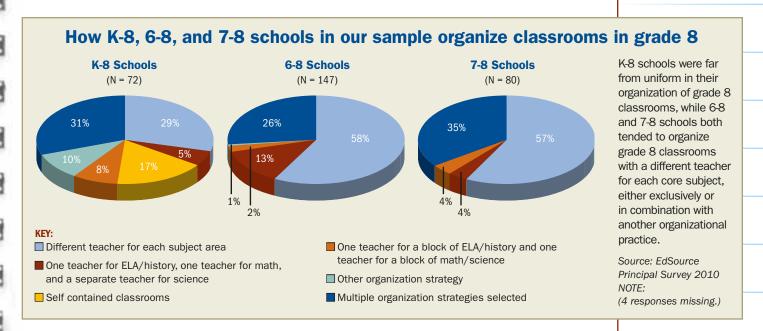
In fact, based on the survey data we collected from our 303 middle grades schools in California, it seems that a school's organization of classroom instruction cannot always be assumed from the school's grade configuration. In particular, almost all 6-8 and 7-8 middle grades schools appear to be more alike than different in how they configure core instruction and in their use of subject matter

departments. This appears to be true whether they take an interdisciplinary approach or have teachers assigned to only one subject.

In addition, our study yielded no clear or consistent finding that a school's organization of classroom instruction was associated with schools' performing better on California's standards-based exams.

Regarding instructional designs intended to support stronger adult-student relationships, our study did not find these to be correlated with higher school-level test scores. This does not mean these strategies are not useful for other reasons, however, or do not make an important contribution to the climate and supportive culture of a school for both teachers and students.

Survey Statistic: Practices Designed to Support Adult-Student Relationships Of 303 principals surveyed about their school practices: 40 reported assigning an adult advocate to every school; 22 said the adult advocate stays with the same students through the middle grades; 32 reported the use of vertical looping so students would have the same teachers for two or more years; 62 reported some form of small learning communities or "schools within a school"; 50 reported advisory/ homeroom teachers who stay with the same student for multiple years; and 91 reported interdisciplinary team-taught courses.



### **Implications for Practice and Policy**



/e believe that this report makes an important contribution to the field by identifying policies and practices that correlate with higher achievement in middle grades schools. We invite educators and policymakers to use this collection of rich findings to evaluate their own practices and guide

- Local educators can use these findings to learn more about what is working
- ▲ State policymakers should examine the extent to which current state policies

While further research and discussion are warranted, we want to highlight the following implications for consideration in the context of policy development, evaluation of current practices, and improving reform strategies.

### **Implications for Districts and Schools**

There may be good reasons for deciding to have a K-8, 6-8, or 7-8 grade configuration, but improving student outcomes is not necessarily one of them. After accounting for specific school policies and practices, no single grade configuration was consistently associated with higher performance on the state's standards-based tests in English Language Arts and math.

Superintendents and boards overseeing grades 6-8 students should discuss the priority they give to academic improvements in the middle grades. This study clearly documents the positive influence of district superintendents and boards on middle grades student academic outcomes when they communicate the importance of outcomes; include those outcomes in their annual evaluations; provide leadership and policies around curriculum and other instructional practices; and align resources to meet academic goals.

The results of this study should encourage principals to engage their staff members and their teachers in conversations about their mission for the middle grades in their schools. Educators in the middle grades have long believed that responsiveness to early adolescent developmental issues and strong adult-student relationships are a central part of the middle grades imperative. They are, but so is academic learning. Educators from higher-performing schools in our study provided a safe and positive environment, extracurricular activities, and frequent efforts to reach out to students and parents. However, the central focus of their collective time and energy was on the kinds of strategies—extensive review and use of data, proactive student interventions, and standardsbased instruction—that are associated with improved student learning and outcomes in ELA and math.

Prioritize strategies for helping students make gains on standards-based exams in the context of the middle grades' unique position in the K-I2 hierarchy to prepare all students to succeed in high school. Students who do well on standards-based exams in ELA and math in the middle grades are more likely to pass California's high school exit exam and graduate. Students who do well on 7th and 8th

grade math CSTs are more likely to start high school in a college preparatory curriculum. If the school views improved student outcomes on standards-based exams as a priority because students benefit, then the school mission will reflect that belief.

When hiring middle grades principals, districts should consider looking for the kind of skills and competencies found in principals of the higher-performing schools in our study. In addition, the district can ensure that a principal has the authority to replace the school leadership team, if necessary, with one that can better support him/ her in driving change.

When hiring middle grades teachers, districts and principals should consider looking for the kinds of interests, skills, and competencies that principals in higher-performing schools report about their teachers. And if those competencies are present, our study suggests that many teachers asked to work at the middle grades level will grow to love it.

Examine the extent to which their middle grades curricula, instructional practices, and assessments are tightly aligned with state academic standards. Questions include: Does teacher professional development help teachers map key state standards by grade and subject to instruction? Does the district provide standards-based benchmark tests for middle grades and return results quickly? Do teachers work collectively and know how to respond to test results? Do teachers use diagnostic tests to determine why a student is struggling? Is there support to help teachers address students' instructional needs?

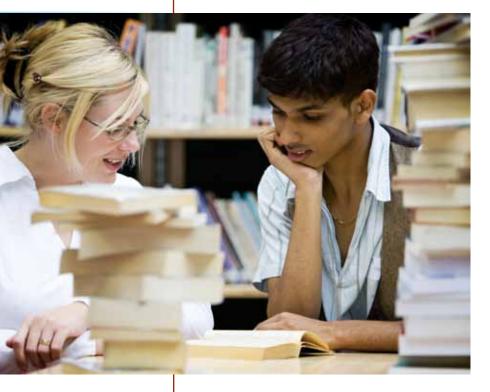
Consider making improvements in middle grades student outcomes a part of professional educator performance evaluations. Consistent with much of the national conversation around educator effectiveness, this study found that evaluating superintendents, principals, and teachers in part on improvements in student outcomes was associated with higher student outcomes on standards-based exams. This practice should be part of a comprehensive strategy that also includes availability of student data, meaningful professional development for teachers and principals, and schools' possessing a complete portfolio of student intervention strategies. This study did not find that salary adjustments for superintendents or principals based upon student performance, which is not a common practice in California, was associated with

higher student outcomes. The survey did not ask a question about teacher salary adjustment based on student outcomes.

### **Implications for State Policy**

California policymakers should make it a priority to do what they can to sustain the state's investment in public education, including a focus on the middle grades. The middle grades are critical to student success in high school. And despite California's having fewer resources than many other states, this study shows that many middle grades schools here are succeeding at improving student outcomes. This study has identified practices associated with these higher performing schools such as frequent and adequate time for common planning, a comprehensive array of student intervention strategies as well as extracurricular classes, access to timely student assessment data, and the computer software and training to effectively use it to improve instruction and learning. Each of these requires resources that are difficult to find when budgets are being cut. State policymakers should do all they can during these challenging fiscal times to continue to support middle grades schools in their efforts to improve student outcomes.





The practices in this study reflect a positive intersection between state policy and the schools' ability to implement it effectively. It has taken time, but California's aligned standards-based reforms are taking hold and are reflected in the higher-performing schools no matter what the socioeconomic background of their students. California should stay the course, completing the reforms where there are gaps, refining the system where improvements would have the most impact, and doing all it can to provide local educators with critical support.

California should be thoughtful when refining its K-I2 academic content standards. This study's findings make it clear that higherperforming middle grades schools use the state's academic standards, and the adopted curriculum programs, to support their efforts to improve student outcomes and prepare students for high school. This momentum should be taken into consideration as state officials consider changes to the state's academic standards. That said, higher-performing middle grades schools also report that they identify and focus on select "key standards"—those most critical to master—at each grade level and in each subject. A state policy that keeps standards rigorous but moves toward fewer standards of greater depth might especially help lower-performing schools better focus their efforts.

Completing California's student data system, combined with support to help districts effectively access and use the data, must remain a high priority. Effective use of data can make a difference in student outcomes, but the ability to access and use data varies widely across the state. Although California and its school districts have been developing data capacity for years, criticism lingers that the state has not invested enough to make this a reality for its nearly 1,000 school districts.

Based on this study, student academic interventions at the middle grades level are an essential tool for educators to get on track the students who are behind grade level, students who are growing disengaged, and English learners. California's budget cuts to K-I2 education this past year and looking forward are likely to have a seriously negative effect on schools' ability to provide an array of effective intervention strategies for all the types of students, including English learners, who could benefit. Districts and schools trying to improve student outcomes will need state, federal, or philanthropic support to maintain effective required and voluntary interventions.

### **Implications for Federal Policy**

The findings reinforce several Race to the Top (RTT) central principles for improving student outcomes, in particular rigorous standards and quality assessments, and the use of student data to improve teaching and learning.

California might highlight the following in its future discussions with the U.S. Department of Education about its RTT grant program:

- RTT requires states to demonstrate they are making progress toward rigorous college- and career-ready standards and quality assessments. The state's higher-performing middle grades schools exemplify these principles: They report that the state's academic standards are the foundation for high expectations for all students, rigorous instructional programs, and student assessments.
- Similarly, principals and teachers in these districts and schools use data and data systems as envisioned by RTT. They report that districts provide data in a timely manner using systems that allow easy access and management. These schools use data extensively to guide instruction, identify student needs, and improve teacher practices.

In two other RTT areas—turning around lowperforming schools and distributing high-quality teachers and leaders in equitable ways-the findings point to policies and practices that support these priorities. For example, the state's higherperforming middle grades schools report that their districts provide useful professional development, ensure teachers are assigned so that students with the greatest need are served well, and give principals the opportunity to reconstitute leadership teams.

For federal policymakers, the findings can help inform the reauthorization of the Elementary and Secondary Education Act in several areas:

- The term "college ready" does not apply only to what happens in high schools. This study makes it clear that higher-performing middle grades schools think about and plan for a rigorous high school curriculum as a foundation for collegeand career-readiness.
- The early identification of struggling students and appropriate interventions—particularly in the middle grades—are priorities for California. These findings offer examples for how federal policy and spending could reflect these priorities in any new education legislation.

### **Implications for Research**

As both benchmarking and diagnostic assessments become more common, researchers, K-I2 educators, and state policy groups should carefully review the quality and validity of these tools. Further development and improvement in these types of assessments could strengthen their usefulness for teachers in their daily work and for adjusting their practice.

Current efforts by foundations, researchers, and federal policymakers to develop a new definition of what makes an effective teacher could contribute significantly to the field. Teacher effectiveness, based upon a list of attributes and competencies cited by principals, was strongly associated with higher

student achievement. Our study did not find that a specific credential was associated with higher school performance, but it did find that other attributes such as teacher subject matter knowledge and skills in using assessment data to identify student needswere important.

Principal training and certification programs should be reviewed to ensure that they prepare leaders who can meet the needs of local schools.

This study is consistent with others in recent years that chronicle the changing role of principals in higher-performing schools to that of manager of school improvement and change, and driver of an orchestrated and coordinated effort by the whole staff to boost outcomes for all students.

### **Further Studies**

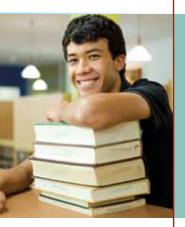
Encouraged by these findings, we plan to continue our research. In the spring of 2010, the research team will conduct a more detailed and deeper analysis of our extensive data file on grades 6-8 math and Algebra I outcomes. The goal is to relate those outcomes to school placement policies, student participation rates in Algebra I, school choice of curriculum, teacher credentials and other subject matter qualifications, and relevant practice and policy.

If funded, another analysis could explore the possibility of tracking the 8th graders in the study to high school and examine their 9th grade math placement and CST scores to see what they reveal about the impact of middle grades math on high school achievement.

EdSource also wants to follow up with field work and case studies to more deeply understand how some districts and schools, especially those previously in Program Improvement that have turned around, were able to develop alignment based on an intense focus on student outcomes. In this way we hope to keep enriching the discussion of these critical middle grade years of education.

Note to readers: This narrative report of findings is a short summary of a complicated and comprehensive study. For more detail on the study's methodology, analyses, survey items, effective practices domains, sample, and other information see the Initial Research Report and the Technical Appendices at www.edsource.org/middle-grades-study.html

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Trish Williams EdSource Executive Director

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520 San Antonio Rd, Suite 200, Mountain View, CA 94040-1217 ■ 650/917-9481 ■ Fax: 650/917-9482 edsource@edsource.org