

10 Ways to Make Research-Based Practices Work in Middle Schools

A Guide From the Middle School Matters Institute





GEORGE W. BUSH
INSTITUTE



The Meadows Center
FOR PREVENTING EDUCATIONAL RISK

The Middle School Matters Institute is an initiative of the George W. Bush Institute in partnership with The Meadows Center for Preventing Educational Risk at The University of Texas at Austin.

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What Is Middle School Matters?

The middle grades are the “make it or break it” years, when some students begin to disengage from school, increasing the likelihood of high school dropout. Research indicates that students at risk of dropping out can be identified as early as sixth grade (Balfanz & Fox, 2011). In fact, sixth-graders who display just one of the following off-track indicators have only a 15% to 25% chance of graduating on time:

- A failing grade in mathematics or English language arts
- An attendance rate of less than 85%
- One unsatisfactory behavior mark in a core course

To address this challenge, the George W. Bush Institute founded the Middle School Matters initiative in partnership with The Meadows Center for Preventing Educational Risk at The University of Texas at Austin. Middle School Matters helps schools across the nation implement practices that are proven effective by high-quality research.

We partner with the nation’s leading education researchers and practitioners and draw upon decades of high-quality research to provide excellent support and resources to middle grade schools across the nation. Our ultimate goal is to increase the number of students well-prepared for high school and postsecondary success. We draw upon **solid research** to develop **practical tools** and **engaging support opportunities** for middle grade campuses, allowing research-based practices to be brought to life in classrooms across the nation.

More information and resources for the middle grades can be found on our website at GreatMiddleSchools.org

Introduction

Middle School Matters (MSM) had a unique opportunity to work collaboratively with three school districts and some of their middle schools during the 2015–2016 school year. These sites, representing MSM’s third cohort of school support participants, were in

- Etiwanda School District in Etiwanda, California;
- Pharr-San Juan-Alamo Independent School District in Pharr, Texas; and
- San Angelo Independent School District in San Angelo, Texas.

Schools in these districts partnered with MSM coaches to design implementation plans for specific research-based practices in areas of high need. Throughout the year, instructional experts (i.e., researchers, expert practitioners) delivered customized professional development (PD) on these practices at each school, and MSM coaches and school leadership teams worked

together to support teachers as they incorporated these practices into daily classroom instruction.

Throughout this work, several important “building blocks” for enhancing the use of research-based practices emerged. **This document summarizes that information by sharing 10 important elements for successful schoolwide adoption and implementation of research-based practices.** Guidance and resources to assist with each component are included.

If you are a middle grade school leader searching for a streamlined process for using research-based practices to improve student outcomes, this guide is for you.

We encourage you to use this document if you are considering schoolwide adoption and implementation of research-based practices across multiple grade levels, departments, or content areas and are serious about those practices leading to improved student outcomes.



Solid Research Base

Successful middle schools rely on a rich, high-quality body of research to inform their selection and use of instructional practices.

1

Know What Works in Middle Schools

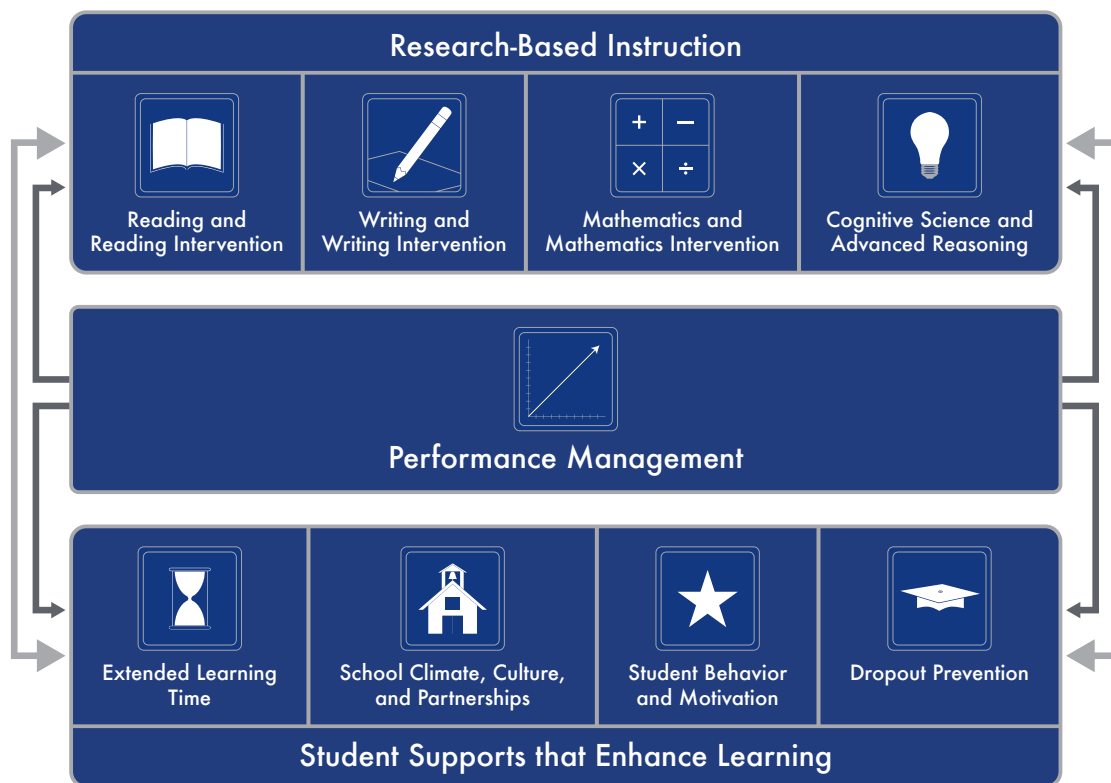
Important decisions about instructional practices and programs should **always** be based on reliable sources that use high-quality research to identify what works in schools (and what doesn't). There is increasing pressure to use research and evidence to support decisions and processes, but too often there are confusing and conflicting messages about what works, what to do, or what not to do. Indeed, the terms "research-based" and "evidence-based" are often overused and misused in an attempt to sell a product or program. The good news is that there are trusted, unbiased sources that middle grade educators can use to inform and guide their work with students.



THE MIDDLE SCHOOL MATTERS FIELD GUIDE

Developed by top researchers and practitioners across the country, the **Middle School Matters Field Guide is a collection of research-based principles, practices, and strategies deemed essential for middle school success.** It includes instructional practices derived from the most rigorous research conducted in the middle grades over the past 15 years. Specifically, the field guide highlights (a) instructional practices that accelerate learning, (b) student supports that raise attendance rates and increase positive behaviors, and (c) performance management strategies that encourage the collection and use of important data. Middle schools should implement these practices widely and with fidelity to reduce students' risk of high school dropout and prepare them for successful high school and postsecondary experiences.

Overview of the *Middle School Matters Field Guide, Second Edition*



All middle grade educators can use the field guide, including principals, administrators, counselors, instructional coaches, teachers, and interventionists. It contains examples and illustrations for each recommended practice to help educators understand and then implement these practices in their classrooms and schools.

To download the Middle School Matters Field Guide, visit greatmiddleschools.org/field-guide

MSM offers a series of research-to-practice briefs focused on several content areas. Visit greatmiddleschools.org/resources/practice-briefs

Strong Leadership

Successful middle schools have leaders who commit to using research-based practices, establish clear expectations for the staff, and build a strong and diverse leadership team.

2

Gain Staff Buy-In

Change at any level often leads to stress and anxiety, which can quickly hamper buy-in. When buy-in is low, improvement initiatives are less likely to be implemented and sustained over time (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). For improvement efforts to succeed, a range of stakeholders (e.g., administrators, teachers, parents, students, district staff members) must have confidence in the proposed changes and in the leadership's ability to "make it happen."

Kickoff celebrations of a new initiative may generate excitement and initial buy-in, but sustainable, long-term, and authentic buy-in is not achieved in one day, week, month, or even one year; it is an ongoing process, achieved over time. Research indicates that one of the most useful approaches to achieving this authentic buy-in is leadership teams (described further in Step 3), which allow small groups of teachers to contribute to decision-making while most teachers focus on the job at hand—instruction (Turnbull, 2002). School leaders can then focus more time on factors that contribute to buy-in, like proper training, staff capacity, and specific implementation needs.



Examples of these factors in action include the following:

- Schools provide adequate training and resources on new practices so that expectations are clear and the staff feels fully prepared to implement.
- Staff capacity is built so that teachers are fully supported throughout implementation through coaching and other means.
- Leaders allow teachers to make decisions on classroom use of new practices (e.g., rollout, scheduling, materials) to meet the individual needs of students.

Schools may find it helpful to read this brief article on the importance of staff buy-in:
<https://greatmiddleschools.org/buy-in>

How One School Achieved Staff Buy-In

The campus leadership team at one Texas middle school collaborated with its district leadership to ensure staff buy-in. First, they aligned and integrated their plan with current districtwide goals and programs. Thus, implementation wasn't something additional or "extra." Second, the campus administration worked closely with teacher leaders to establish long-term and short-term goals as well as specific and attainable steps toward those goals. Third, the implementation goals and action steps were incorporated into regular teacher observations, professional learning community (PLC) meetings, and vertical alignment meetings. Fidelity of implementation and student data related to the progress of implementation were regularly discussed, and adaptations to the plan were made as needed. Fourth, because the initiative was rooted in the school's culture, it continued uninterrupted even with standard staff turnover (e.g., retirement, promotion). These four practices demonstrated the importance of and commitment to implementation and thus helped achieve buy-in at all levels. Teachers reported more willingness to put forth effort when they knew it was for the long term—a good antidote to "initiative fatigue."



3

Establish a School Leadership Team

Strong school leaders support the use of research-based practices from start (initial adoption) to finish (ongoing sustainability). One critical step is the formation of a school leadership team. Establishing a leadership team is important because it

- builds a school culture committed to using research-based practices and examining data to determine whether those practices are successful,
- emphasizes the expectation that all staff members contribute to implementation and important decision-making,
- allows principals to delegate tasks and develop future leaders, and
- promotes sustainability.

The leadership team should include a range of stakeholders and viewpoints, including administrators, teachers of core subjects (e.g., English language arts, science, mathematics), interventionists, instructional coaches, counselors or psychologists, parents, community members, and school district staff members.

ROLES AND RESPONSIBILITIES

Each leadership team member should be assigned a specific role and understand his or her responsibilities. Roles may include a coordinator or manager (i.e., someone who ensures that deadlines are met, action steps are accomplished, etc.), data manager, instructional specialist, student support specialist, action plan manager, and a parent/community liaison. Clearly assigned

roles allow teams to function effectively and efficiently.

REGULAR MEETINGS

With all the demands placed on educators, it is easy for action steps and goals to be forgotten or pushed aside. Establishing regular check-in meetings for the leadership team allows faster, easier, and more effective implementation of research-based practices (Fixsen, Blase, Timbers, & Wolf, 2001). These meetings provide a time for team members to review implementation and action plans, document progress, and adjust resource allocation, which encourages timely completion of goals. More details regarding these check-in meetings will be described in Step 10, which pertains to reflection and refinement.



Forming a Strong Leadership Team

When one middle school assembled its leadership team, the principal identified teachers from a variety of content areas who demonstrated leadership capabilities and a strong commitment to student achievement. The principal explained the purpose and expectations of the leadership team and invited teachers to participate. Once the team was assembled, all members attended summer PD on research-based practices and subsequently developed an implementation plan before the next school year began. During the school year, the team met roughly once per month to discuss implementation progress and plan next steps.

MSM has developed a booklet with guidance and tools to aid the formation of leadership teams. Download this guide at <https://greatmiddleschools.org/download-view/leadership-checklist>

Strategic Planning

Successful middle schools take time to plan carefully and deliberately to ensure that the implementation of research-based practices meets school needs, is efficient, and contributes to the school's mission statement.

MSM has developed self-assessment forms that guide users through a reflection process. Download the forms at <https://greatmiddleschools.org/resources/self-assessments>

4

Know Your Needs

Self-assessment tools that align with the principles and practices in the Middle School Matters Field Guide are available online. These tools were designed to help school leadership teams assess current instructional practices in areas like mathematics, performance management, cognitive science, and reading throughout all content areas. Middle schools may choose to complete one or several self-assessments, depending on their interests and needs.

In the self-assessment process, educators should refer to data instead of relying on hunches, assumptions, or educated guesses. Data and information that may be useful to this process include the following:

- Early warning indicator data (e.g., student attendance, behavior/discipline referral data, course passing rates)
- Student achievement data (e.g., scores from state assessments, end-of-course exams, standardized tests, benchmark or interim assessments)
- Intervention progress-monitoring data
- Student surveys
- Instructional delivery data (e.g., classroom observations, lesson plans, notes from vertical or grade-level team meetings)
- Curricula, state standards alignments, and scope-and-sequence documents



5

Develop Implementation Plans

After completing a self-assessment, the leadership team should review results and determine which principles or practices to target for improvement. **Based on past work with schools, it is highly recommended that schools set no more than three implementation goals (and subsequently, develop only three action plans) in a single year.**

Goals related to implementing research-based practices should be

- SMART (**S**pecific, **M**easurable, **A**ttainable, **R**elevant, and **T**imely; adapted from Doran, 1981);
- focused on teacher actions, not on what students do or learn (e.g., 90%

of science teachers will teach two new words per week using vocabulary maps by the end of October); and

- aligned with existing initiatives and school improvement plans so that educators see the connections and how they contribute to the same overarching student goal.

In addition, schools are encouraged to identify the desired student impact resulting from this instructional change (e.g., *By May 2018, 85% of students will meet or exceed standard on the state reading assessment*). Identifying the student impact helps educators stay focused on the true purpose of the instructional change.

MSM has developed an action plan template so that each goal can be recorded with the specific action steps needed to reach the goal. Download the template at

<https://greatmiddleschools.org/resources/action-plan-templates>

Example Implementation Goal and Action Steps

One school's mission was to improve students' reading and comprehension in the content areas. One strategy the school identified was to increase students' academic vocabulary through explicit vocabulary instruction and vocabulary maps. The school developed the following implementation goal and action steps. The desired student impact and baseline data are also provided.

Implementation Goal: By the end of the 2015–2016 school year, all core classroom teachers will use vocabulary maps with fidelity at least three times per 6 weeks.		
Desired Student Impact: By May 2016, 70% of all students will meet or exceed standard on the state reading assessment, an increase of 5 percentage points.		
Baseline Data: 2015 state reading assessment = 65% meeting or exceeding standard		
Action Step	Deadline	Person(s) Responsible
Obtain a fidelity measure for vocabulary instruction	July 27, 2015	English Language Arts Department head
Train administrators on how to use the fidelity measure	August 11, 2015	English Language Arts Department head, administrators
At the beginning-of-the-year PD, train all content teachers in explicit vocabulary instruction using vocabulary maps and how fidelity of implementation will be observed	August 21, 2015	Principal, English Language Arts Department head
Observe vocabulary instruction to gauge fidelity for half of an assigned department at least once per 6 weeks	Each grading period	Administrators
In PLC meeting, create implementation calendar to indicate when teachers use vocabulary instruction	Weekly	Administrators
During PLC, provide teachers with observation data and feedback on implementation of vocabulary instruction	Weekly	Administrators, PLC facilitator

Professional Learning

Successful schools avoid “one-off” PD sessions; instead, they provide opportunities for teachers to refine their teaching through ongoing PD, coaching, and feedback from observations.

6

Narrow Your Focus and Stick With It

PD in middle schools is not always research based, ongoing, contextualized, or deep (see Brownell et al., 2009). Most PD follows an ineffective model of “one-off” workshops that lack depth and follow-through. Even when initial PD focuses on high-quality practices, actual implementation of these practices often suffers from a lack of ongoing support.

Similarly, educators are often overloaded with disjointed PD from various sources (e.g., district initiatives, in-service days). These teachers are unable to master any one new practice or teaching method, leading to frustration and undesirable results. **In general, it is better to do a few things really well than to do many things poorly.**

When teachers are allowed to **focus on one or two practices** during a single school year and **have extended opportunities to build depth of knowledge and refine implementation through ongoing support**, they are more likely to integrate and sustain these

practices and produce the desired student outcomes (Brownell et al., 2009; Garet, Porter, Desimone, Birman, & Yoon, 2001).

The following are recommendations for effective PD:

- Focus on practices that have been proven effective by rigorous, randomized controlled trials in middle school settings.
- Align the PD with existing initiatives.
- Limit professional learning to one or two new practices within a school year.
- Provide PD in small doses (i.e., a few hours) spread out over the year (e.g., an initial PD session followed by several doses of refinement PD).

PD should also include active learning, collective participation, and plans to monitor and support the implementation of practices over time through coaching. These ideas are discussed further in Steps 7 and 8.



7

Go Beyond “Sit-and-Get” PD

Typically, teachers participate in traditional “sit-and-get” PD sessions (i.e., workshop format) when being introduced to a new strategy or practice. This type of training is an efficient way to teach the basics of new instructional approaches. However, best practice and research (Fixsen, Blase, Naoom, & Duda, 2015) indicate that effective training also includes demonstrations, practice, and feedback. Therefore, **traditional PD sessions should be coupled with contextualized professional learning activities** that solidify and deepen knowledge of research-based practices. Desimone’s framework (2009) for PD specifies that the impact can be maximized through **active learning** that goes beyond passive listening and **collective participation**

that promotes rich discussion and shared learning among teachers in the same school, grade, or content area. Two key strategies for making PD more active and collective are described below.

IN-CLASS DEMONSTRATIONS

Ideally, PD providers or instructional coaches can model new practices in the classroom with actual students. Teachers seeing the practices in action with their own students can have a powerful effect, as it removes the assumption that certain strategies “won’t work with my students.” Of course, this modeling is possible only if PD is conducted on campus during a regular school day. In the case of PD occurring off campus,

PD providers can show practices in action through a video or a live demonstration with teachers role-playing the part of students.

SMALL-GROUP LESSON PLANNING SUPPORT

Teachers need to apply what they have learned to real-life practice in the form of lesson planning supported by the PD provider, instructional coach, or another expert. This guided planning time allows teachers to see how practices described in PD can be operationalized in the classroom and tied into the existing curriculum, identify required resources, plan for the logistics of instruction (e.g., moving into small groups, fostering team work), and anticipate learning and behavioral challenges.



8

Reinforce Learning Through Coaching

Instructional practices can be introduced in formal PD, but most of the skills needed to implement new practices are learned on the job with the help of a coach (Fixsen et al., 2015). An effective coach helps teachers refine their craft and provides guidance, encouragement, and concrete steps to improve practice. Embedding a coaching component into PD sets an expectation that teachers will implement the practices discussed and improve their use of these practices over time.

Instructional coaches should have deep knowledge of research-based practices and be comfortable modeling these practices in the classroom. Typical duties include the following:

- Developing a schedule for regular coaching sessions with teachers
- Observing teachers using the instructional practices and recording observation notes
- Reviewing student data in combination with observation notes to fully understand teachers' needs

- Conducting feedback meetings and developing action steps in collaboration with the teachers

It is important to note that coaches, themselves, also need support. This support may come from specialized training sessions to build coaches' capacity and expertise, observations by a master coach, and "satisfaction surveys" from those being coached.

Instructional Materials Matter!

A lack of instructional resources that align with PD topics and the curriculum can become a major barrier to implementation. For instance, teachers may learn about a new strategy during PD, but if they must also develop lesson plans and student materials from scratch, they will be less than eager to implement.

MSM offers a suite of instructional toolkits that supplement PD and support teachers' use of research-based practices. These toolkits contain PD resources, videos, and instructional materials like student handouts and lesson plans. Toolkits are available for free at <https://greatmiddleschools.org/toolkits>

MSM offers coaching forms for the reading, math, and writing practices described in the field guide at <https://greatmiddleschools.org/resources/resources-for-school-leaders/coaching-forms>. Observation checklists for specific research-based practices are also available at <https://greatmiddleschools.org/checklists>

A Strategy for Classroom Coaching

One middle school established an internal coaching structure to increase the likelihood of successful implementation. First, the school organized an onsite team of “teacher coaches” who observed and coached teachers in the same grades and subjects weekly through PLCs. These coaches modeled lessons approximately once a month, conducted observations, and provided feedback to teachers after PD. As the principal noted, “That has been the shining star for the year—for teachers to offer help and accept help from colleagues. It’s about teachers helping teachers and colleagues helping colleagues.”

Reflection and Refinement

Successful middle schools reflect on their use of research-based practices; assess overall performance; and refine their goals, plan, and procedures.

9

Dedicate Time for Teacher Collaboration

Teachers should collaborate during grade-level or vertical team meetings to analyze, interpret, and understand changes and trends in data. It is important that teachers make connections between the curriculum, their instructional delivery, and students' performance. For example, math teachers need to examine math-related data in line with their instructional scope and sequence.

It is important that a facilitator (e.g., instructional coach) lead meetings and that educators receive agendas ahead of time and come to meetings prepared. Principals should monitor the outcomes of meetings and ensure that teachers discuss data and change their practices as part of the continuous improvement cycle.

Vertical team meetings include data discussion and goal examination across grades with a focus on common activities, expectations, and vocabulary, in addition



to cross-curricular and cross-grade activities. This helps teachers understand how standards progress from year to year and recognize when a standard is being taught for the first time. Vertical team discussions can support alignment of instruction and assessment across the grade levels.

During team meetings, educators should

- have sufficient time to discuss teaching and learning coupled with student data;
- ask teachers especially effective at teaching certain topics to share their strategies;
- conclude with practical data-based action steps they can take into the classroom to improve learning and reach goals.



Video

Effective Vertical Alignment Meetings

Lee Middle School Principal Farrah Gomez; Instructional Coach Jennifer Feck; and sixth-, seventh-, and eighth-grade English language arts teachers discuss recent student data and adjustments to instruction.

<https://greatmiddleschools.org/download-view/effective-vertical-alignment-meetings>

10

Refine Plans Along the Way

Once implementation begins, leadership teams should monitor both the **completion of action items** and the **effectiveness of instructional practices** (i.e., student progress), and these data should be discussed during leadership team meetings. Adjustments to the overall implementation plan should be made when team members discover that current plans are not achieving the desired results.

MONITOR ACTION ITEMS

First, teams should review action plans and determine which action items have been completed and which are still pending. They should attempt to answer the question “Have we done what we said we would do?” **Evidence of implementation** should be collected—that is, data that prove that these items have been completed (e.g., observation notes, lesson plans, student work samples, documented procedures and processes). These data can also be

used to assess the **fidelity** of the overall implementation plan and answer the question “How well did we do it?” If teams discover that steps are not being completed (or are not being completed well), reasons must be discussed and solutions offered.

Monitoring action items is important because we cannot expect student performance to improve if we do not change our practices in a meaningful and effective way.

Reflection Matters

Leadership teams should ask two questions during their meetings: (1) Have we done what we said we would do? (2) How well did we do it?

MONITOR STUDENT PROGRESS

The job of the leadership team is “not simply to ensure that students are taught but to ensure that they learn” (Dufour, 2004). Therefore, teams must assess the impact of the practices on student learning. Educators should collect valid student data and compare it to the baseline data recorded on the action plan developed during the planning phase. This comparison allows leaders to identify data trends and determine whether and how current practices need adjusting. It is likely that regular adjustments to instruction will be necessary, and these decisions should be informed by multiple sources of student data and teacher input.

REFINE IMPLEMENTATION PLANS

Implementation and action plans should always be considered “living documents.” Thus, individual action items will be added, deleted, or edited based on data and leadership team discussions. Likewise, educators may need to discontinue some current practices because they are not research based or are found to be ineffective with the school’s particular students. Discontinuing these types of practices allows time and energy for new research-based instructional practices. School administrators and teachers can provide support in reviewing the data collected and suggesting changes to the plan.

It is important to celebrate what went well during implementation and any signs of success in terms of student outcomes. Obstacles and challenges need to be considered, and the school leader or leadership team can determine what changes to the plan are needed. This is also a good time to revisit the research literature. With the new knowledge, experience, and wisdom, leadership will be able to view the research through a new and sharper lens.

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