

Setting the Record

STRAIGHT

on “High-Yield” Strategies

Watching your work adopted by educators across the nation is flattering, but not if it’s widely misinterpreted.

BY ROBERT J. MARZANO

Across the country there seems to be a great deal of discussion about “high-yield strategies” — classroom techniques that have research supporting their utility at enhancing student achievement.

I’ve seen this term in online courses, district documents, and even in state documents. It’s probably safe to say that I and my colleagues have unwittingly fostered this phenomenon by our comments in at least three books: *Classroom Instruction That Works* (Marzano, Pickering, and Pollock 2001); *Classroom Management That Works* (Marzano, Marzano, and Pickering 2003), and *Classroom Assessment and Grading That Work* (Marzano 2006). In each book, we tried to explain that our findings and recommendations were general and there was still much to be learned about pedagogical expertise.

For example, in *Classroom Instruction That Works*, we mentioned that a number of very important questions about the instructional strategies that we identified remained unanswered:

Are some instructional strategies more effective in certain subject areas? Are some instructional strategies more effective at certain grade levels? Are some instructional strategies more effective with students from different backgrounds? Are some instructional strategies more effective with students of different aptitudes? (p. 9)

We also cautioned that research indicates that the instructional strategies we identified might have a positive effect on student achievement in some situations, but have a negligible or even negative effect on student achievement in other situations. Our conclusion was: “Until we find the answers to the preceding questions, teachers should rely on their knowledge of their students, their subject matter, and their situations to identify the most appropriate instructional strategies” (p. 9). Finally, we emphasized that our list was highly limited in perspective. Effective pedagogy involves a variety of interacting components. We tried to make the same points in all three books.

Given the qualifiers we placed on our findings and our suggestions, we felt quite good about the initial reaction to the books. They appeared to encourage discussions about effective pedagogy in schools and districts across the country. While the positive effects of these books are gratifying, there are some negative outcomes that seem to be growing in scope and influence. Specifically, educators are making at least three mistakes when using the lists of strategies presented in our books (and other books like them). Left unchecked,

ROBERT J. MARZANO is cofounder and CEO of Marzano Research Laboratory in Denver, Colorado, and author of more than 30 books and 150 articles on topics such as instruction, assessment, writing and implementing standards, cognition, effective leadership, and school intervention.

PDKConnect

To comment on this article, log in at pdkintl.org and click on PDKConnect.

these mistakes can impede the development of effective teaching in classrooms across the country.

MISTAKE #1: FOCUSING ON A NARROW RANGE OF STRATEGIES

Perhaps the most pervasive mistake is focusing on a narrow range of strategies. We wrote the three books listed above (as well as other related books) to convey

the message that effective teaching is a complex endeavor with many components. *Classroom Instruction That Works* identifies nine categories of instructional strategies. *Classroom Management That Works* identifies five categories of management strategies. *Classroom Assessment and Grading That Work* identifies four categories of activities that go into developing and implementing effective formative assessments. Focusing on any single set of categories *exclusively* is a serious mistake. In each book, the message is the same: The entire constellation of strategies is necessary for a complete view of effective teaching. Unfortunately, in some schools and districts, this message was lost. This happens quite frequently with the strategies listed in *Classroom Instruction That Works*.

Classroom Instruction That Works listed nine categories of instructional strategies: 1) identifying similarities and differences, 2) summarizing and note taking, 3) reinforcing effort and providing recognition, 4) homework and practice, 5) nonlinguistic recommendations, 6) cooperative learning, 7) setting objectives and providing feedback, 8) generating and testing hypotheses, and 9) cues, questions, and advance organizers. These categories were quite broad. For example, by definition, the category cues, questions, and advance organizers combined at least three independent but related types of instructional strategies. We referred to these strategies as “high-probability” strategies as opposed to “high-yield” strategies. We explained our purpose in writing the book as follows: “to identify those instructional strategies that have a high probability of enhancing student achievement” (pp. 6-7).

We explicitly warned that these categories of strategies are only part of a comprehensive view of teaching:

We need to make one final comment on the limitations of the conclusions that educators can draw from reading this book. Although the title of this book speaks to instruction in a general sense, you should note that we have limited our focus to instructional strategies. There are certainly other aspects of classroom pedagogy that affect student achievement. (p. 9)



Juulimited/Stockport

In spite of this warning, many teachers have told me that their school or district focuses solely on those nine categories. Principals provide teachers with feedback on using these strategies after doing instructional walkthroughs. In these schools and districts, the so-called nine high-yield strategies represent

ARTICLE AT A GLANCE

Many schools and districts are encouraging — and often requiring — teachers to use nine strategies identified in *Classroom Instruction That Works* by Robert Marzano, Deborah Pickering and Jane Pollock. But teaching is a complex endeavor with many components.

Marzano writes that schools and districts that overemphasize the nine strategies are making three mistakes.

They are:

- Focusing on a narrow range of strategies;
- Assuming that high-yield strategies must be used in every class; and
- Assuming that high-yield strategies will always work.

He presents a broader set of strategies related to instruction, management, and assessment and demonstrates how those can be used to broaden and deepen instruction that leads to improved student learning.

the totality of what's expected regarding effective teaching. This is poor practice, just as it is poor practice to focus solely on the strategies in *Classroom Management That Works* or *Classroom Assessment and Grading That Work*.

While beginning with a narrow focus is legitimate, a school or district must expand the breadth of its discussion of effective teaching. Where to begin is a matter of preference. Starting with the nine high-probability strategies in *Classroom Instruction That Works* makes good sense. Starting with strategies for classroom management also makes sense. Indeed, based on the research, one can make a case that classroom management strategies should be the initial focus if one is beginning with a narrow approach. To illustrate,

as a result of their analysis of 228 variables identified in 86 chapters from annual research reviews, 44 handbook chapters, 20 government documents, and 11 journal articles, Wang, Haertel, and Walberg (1993) rated classroom management strategies first in terms of their impact on student achievement. Finally, given the impressive findings reported by Black and William (1998) in their analysis of 250 studies, one could make a case that classroom formative assessment strategies are the best place to start.

The important message here is that providing feedback to teachers regarding effective instruction necessitates articulating a broad array of strategies organized into a comprehensive framework. To adapt a well-worn cliché, *the whole is "more valid" than the sum of its parts*. In the book, *The Art and Science of Teaching* (Marzano 2007), I tried to provide a view of how a comprehensive framework of teaching might be organized. This is shown in the chart on page 33.

The chart lists 41 categories of strategies that represent the major areas of pedagogy identified in re-

search as related to student achievement. In addition, over the years, I've been involved in hundreds of experimental/control studies on the effects of these strategies (see marzanoresearch.com).

While 41 categories of strategies may seem daunting at first, something as complex as teaching can't be reduced to nine categories of instructional strategies, or five categories of management strategies, or four categories of assessment strategies. These categories aren't random behaviors that might occur at any point during any class. Each is best employed in a particular context.

The three broad areas in the chart represent the most general types of what Leinhardt refers to as a "lesson segments:"

This research-based information points to the fact that lessons are constructed with multiple parts, or lesson segments, each of which has important characteristics. Each segment contains different roles for teachers and students. Each segment has multiple goals, which can be more or less successfully met by a variety of actions. Further, these segments are supported by fluid, well-researched routines. (Leinhardt 1990, pp. 21-22)

To paraphrase Leinhardt, at any point a teacher is probably engaged in a unified set of actions — or segments — that have a common purpose. In the parlance of *The Art and Science of Teaching*, there are three general categories of segments signified by Roman numerals I, II, and III. These general categories are organized into more specific types of segments. Under content (I) are three different types of segments that manifest as three different types of lessons (A, B, and C). Each lesson type is associated with a specific purpose and specific strategies. Under routine activities (II) are two types of segments (D and E) that would most likely occur in every lesson regardless of the content being addressed. Under behaviors that are enacted on the spot (III) are four types of segments (F, G, H, and I).

These segments and their related behaviors can be used to obtain a more precise view of teaching. Defining teaching using a narrow set of instructional strategies, management strategies, or assessment strategies doesn't do justice to the complexity of the teaching-learning process.

MISTAKE #2: ASSUMING THAT HIGH-YIELD STRATEGIES MUST BE USED IN EVERY CLASS

A school or district that uses a narrow list of instructional, management, or assessment strategies will fall into the trap of assuming that all strategies must be used in every classroom.

Let me illustrate using the nine categories of in-

FIG. 1

A Comprehensive List of Strategies that Relate to Effective Teaching

I. CONTENT

A. Lessons Involving New Content

STRATEGY

1. Identifying critical information (e.g., the teacher provides cues as to which information is important) **A&S**
2. Organizing students to interact with new knowledge (e.g., the teacher organizes students into dyads or triads to discuss small chunks of content) **CITW**
3. Previewing new content (e.g., the teacher uses strategies such as: K-W-L, advance organizers, preview questions) **CITW**
4. Chunking content into "digestible bites" (e.g., the teacher presents content in small portions that are tailored to students' level of understanding) **A&S**
5. Group processing of new information (e.g., after each chunk of information, the teacher asks students to summarize and clarify what they have experienced) **CITW**
6. Elaborating on new information (e.g., the teacher asks questions that require students to make and defend inferences) **CITW**
7. Recording and representing knowledge (e.g., the teacher asks students to summarize, take notes, or use nonlinguistic representations) **CITW**
8. Reflecting on learning (e.g., the teacher asks students to reflect on what they understand or what they are still confused about) **CAGTW**

B. Lessons Involving Practicing and Deepening Content That Has Been Previously Addressed

STRATEGY

9. Reviewing content (e.g., the teacher briefly reviews related content addressed previously) **CITW**
10. Organizing students to practice and deepen knowledge (e.g., the teacher organizes students into groups designed to review information or practice skills) **CITW**
11. Practicing skills, strategies, and processes (the teacher uses massed and distributed practice) **CITW**
12. Examining similarities and differences (e.g., the teacher engages students in comparing, classifying, creating analogies and metaphors) **CITW**
13. Examining errors in reasoning (e.g., the teacher asks students to examine informal fallacies, propaganda, bias) **A&S**
14. Using homework (e.g., the teacher uses homework for independent practice or to elaborate on information) **CITW**
15. Revising knowledge (e.g., the teacher asks students to revise entries in notebooks to clarify and add to previous information) **CITW**

C. Lessons Involving Cognitively Complex Tasks (Generating and Testing Hypotheses)

STRATEGY

16. Organizing students for cognitively complex tasks (e.g., the teacher organizes students into small groups to facilitate cognitively complex tasks) **CITW**
17. Engaging students in cognitively complex tasks (e.g., the teacher engages students in decision-making tasks, problem-solving tasks, experimental inquiry tasks, investigation tasks) **CITW**
18. Providing resources and guidance (e.g., the teacher makes resources available that are specific to cognitively complex tasks and helps students execute such tasks) **A&S**

II. ROUTINE ACTIVITIES

D. Communicating Learning Goals, Tracking Student Progress, and Celebrating Success

STRATEGY

19. Providing clear learning goals and scales to measure those goals (e.g., the teacher provides or reminds students about a specific learning goal) **CAGTW**
20. Tracking student progress (e.g., using formative assessment, the teacher helps students chart their individual and group progress on a learning goal) **CAGTW**
21. Celebrating student success (e.g., the teacher helps student acknowledge and celebrate current status on a learning goal as well as knowledge gain) **CAGTW, CITW**

E. Establishing and Maintaining Classroom Rules and Procedures

STRATEGY

22. Establishing classroom routines (e.g., the teacher reminds students of a rule or procedure or establishes a new rule or procedure) **CMTW**
23. Organizing the physical layout of the classroom for learning (e.g., the teacher organizes materials, traffic patterns, and displays to enhance learning) **CMTW**

III. BEHAVIORS THAT ARE ENACTED ON THE SPOT AS SITUATIONS OCCUR

F. Engaging Students

STRATEGY

24. Noticing and reacting when students are not engaged (e.g., the teacher scans the classroom to monitor students' level of engagement) **CMTW**
25. Using academic games (e.g., when students are not engaged, the teacher uses adaptations of popular games to reengage them and focus their attention on academic content) **A&S**
26. Managing response rates during questioning (e.g., the teacher uses strategies to ensure that multiple students respond to questions such as: response cards, response chaining, voting technologies) **A&S**
27. Using physical movement (e.g., the teacher uses strategies that require students to move physically such as: vote with your feet, physical reenactments of content) **CMTW**
28. Maintaining a lively pace (e.g., the teacher slows and quickens the pace of instruction in such a way as to enhance engagement) **CMTW**
29. Demonstrating intensity and enthusiasm (e.g., the teacher uses verbal and nonverbal signals that he or she is enthusiastic about the content) **CMTW**
30. Using friendly controversy (e.g., the teacher uses techniques that require students to take and defend a position about content) **A&S**
31. Providing opportunities for students to talk about themselves (e.g., the teacher uses techniques that allow students to relate content to their personal lives and interests) **CMTW**
32. Presenting unusual information (e.g., the teacher provides or encourages the identification of intriguing information about the content) **A&S**

G. Recognizing Adherence and Lack of Adherence to Classroom Rules and Procedures

STRATEGY

33. Demonstrating "witnessness" (e.g., the teacher is aware of variations in student behavior that might indicate potential disruptions and attends to them immediately) **CMTW**
34. Applying consequences (e.g., the teacher applies consequences to lack of adherence to rules and procedures consistently and fairly) **CMTW**
35. Acknowledging adherence to rules and procedures (e.g., the teacher acknowledges adherence to rules and procedures consistently and fairly) **CMTW**

H. Maintaining Effective Relationships with Students

STRATEGY

36. Understanding students' interests and backgrounds (e.g., the teacher seeks out knowledge about students and uses that knowledge to engage in informal, friendly discussions with students) **CMTW**
37. Using behaviors that indicate affection for students (e.g., the teacher uses humor and friendly banter appropriately with students) **CMTW**
38. Displaying objectivity and control (e.g., the teacher behaves in ways that indicate he or she does not take infractions personally) **CMTW**

I. Communicating High Expectations

STRATEGY

39. Demonstrating value and respect for low-expectancy students (e.g., the teacher demonstrates the same positive affective tone with low-expectancy students as with high-expectancy students) **A&S**
40. Asking questions of low-expectancy students (e.g., the teacher asks questions of low-expectancy students with the same frequency and level of difficulty as with high-expectancy students) **A&S**
41. Probing incorrect answers with low-expectancy students (e.g., the teacher inquires into incorrect answers with low-expectancy students with the same depth and rigor as with high-expectancy students) **A&S**

© Robert J. Marzano (2009)

CITW: addressed in *Classroom Instruction That Works* (Marzano, Pickering, and Pollock 2001). **CMTW:** addressed in *Classroom Management That Works* (Marzano, Pickering, and Marzano 2003). **CAGTW:** addressed in *Classroom Assessment and Grading That Works* (Marzano 2006). **A&S:** addressed in *The Art and Science of Teaching* (Marzano 2007) but not addressed in CITW, CMTW, or CAGTW.

structional strategies reported in *Classroom Instruction That Works*. If an administrator or instructional coach observes a classroom and doesn't see evidence of the nine instructional strategies, teachers tell me they are asked why they didn't use one or more strategies. This contradicts the implicit message in our chart: *A specific instructional strategy is effective only when used in the specific situation for which it was designed*. To illustrate, consider summarizing and note taking — two strategies from *Classroom Instruction That Works*. These

Focusing on any single set of categories exclusively is a serious mistake.

strategies make perfect sense when a lesson focuses on new content (see A). However, they don't make as much sense when a lesson involves cognitively complex tasks that require students to generate and test hypotheses (see C). In those lessons, teachers want students to apply what they've learned in previous lessons. The two types of lessons, then, have very different purposes and therefore employ different sets of strategies. Consequently, if a teacher is engaging students in a lesson that involves cognitively complex tasks that require generating and testing hypotheses, summarizing and note taking probably wouldn't be the best instructional strategies. Instead, as indicated in C, the teacher should be organizing students in groups to process cognitively complex tasks; engaging students in cognitively complex tasks like decision making, problem solving, experimental inquiry, or investigation; and then acting as a resource provider and guide. Summarizing and note taking are probably non sequiturs in this context — these strategies don't fit well within this particular type of lesson. Even worse, requiring a teacher to use summarizing or note-taking strategies during a lesson that's geared toward complex tasks involving hypothesis generation and testing is probably recommending poor practice.

To provide effective feedback to teachers as the result of a walkthrough or an extended observation requires that the observer first ask himself or herself, "What am I observing right now?" If it's the beginning or ending of class, the observer might expect to see routine activities. Those routine behaviors might involve communicating learning goals, tracking student progress, or celebrating success (see D) or they might involve establishing and maintaining classroom routines or organizing the physical layout of the classroom for learning (see E). If content is being addressed, the observer must determine which of three types of lesson is occurring. The lesson might involve new content (see A), it might involve practicing and deepening content that was previously ad-

ressed (see B), or it might involve applying knowledge through complex tasks that require generating and testing hypotheses (see C). Other than content, an observer might note that something has occurred in class that must be addressed immediately. This could involve the teacher attending to engagement when it appears to be waning (see F). The teacher could be recognizing and acknowledging adherence to a classroom rule or procedure or recognizing and acknowledging lack of adherence to a rule or procedure (see G). Or the teacher could be doing something to establish or maintain an effective relationship with students (see H). Finally, the teacher could be communicating that all students are expected to achieve at high levels (see D).

MISTAKE #3: ASSUMING THAT HIGH-YIELD STRATEGIES WILL ALWAYS WORK

The term "high yield" encourages educators to assume that strategies identified in the research are guaranteed to work. For the record, I've tried to avoid using this term over the last decade. As mentioned previously, we used the term "high probability" strategies in *Classroom Instruction That Works*. If you examine the research on classroom strategies (whether they relate to instruction, management, or assessment), you'll find that some have an average effect size that's larger than others. To illustrate, Hattie (2009) examined 146,142 effect sizes from studies on educational strategies, programs, and practice. From this, he identified 138 variables, many of which were instructional strategies and school- or district-level innovations. He even ordered them from highest to lowest in terms of effect sizes. Feedback was one of the highest ranked instructional strategies. This strategy is reflected in 19, 20, and 21 of the chart — setting clear goals, tracking student progress, and celebrating success, respectively. But, an examination of the research on feedback indicates that even this "very high-yield" strategy doesn't always work to enhance student achievement. For example, when Kluger and DeNisi (1996) examined the results of 607 experimental/control studies on the effect of feedback, they found that over 30% of them showed a negative effect on student achievement.

I've observed the same phenomenon with virtually every strategy and every innovation I've examined. I've come to the conclusion that you can expect anywhere from 20% to 40% of the studies in any given area to report negative results. While this might surprise or even discourage some, that's simply the nature of the social sciences, in which there are a wide variety of variables that determine

whether a particular strategy is going to produce positive results in any given situation. The lesson to be learned is that educators must always look to whether a particular strategy is producing the desired results as opposed to simply assuming that if a strategy is being used, positive results will ensue. If a strategy doesn't appear to be working well, educators must adapt the strategy as needed or use other strategies. This is yet another reason why teachers shouldn't be required to use specific strategies. Since none are guaranteed to work, teachers must have the freedom and flexibility to adapt or try something different when student learning isn't forthcoming.

WHAT'S A SCHOOL OR DISTRICT TO DO?

Given my cautions, a reasonable question is what is a district or school to do? First, a district or school should have a common language of instruction — a way to talk about instruction that's shared by everyone in the district or school. But that common language of instruction should be comprehensive and robust. It should involve segments that address three broad areas: content lessons, routines, and things that occur in class that must be addressed on the spot — sections I, II, and III respectively. A district can

begin developing a language of instruction by focusing on a list of instructional strategies, management strategies, or assessment strategies. But this is just a beginning.

Second, the common language of instruction should become part of discussion and feedback with

A school or district that uses a narrow list of instructional, management, or assessment strategies will fall into the trap of assuming that all strategies must be used in every classroom.

teachers. Both discussion and feedback are critical to developing expertise (see Ericsson and Charness 1994). Walkthroughs are probably the most common way that teachers receive feedback on their use of strategies. As mentioned above, feedback generated from walkthroughs must not be limited to a narrow set of instructional strategies. Rather, feedback from walkthroughs must identify the type of segment that was observed (routines, specific types of lessons, or behaviors that must be enacted on the spot) and the use of specific strategies appropriate to that segment.

In addition, rather than being seen solely as a vehicle to provide teachers with feedback, walkthroughs should be viewed as a vehicle for the observers to

Marzano Research Laboratory

Dr. Robert J. Marzano



Cutting-edge **research**
Concrete **strategies**
Sustainable **success**



Designing & Teaching Learning Goals & Objectives

By Robert J. Marzano

NEW! This book summarizes key research behind designing and teaching learning goals and objectives and translates that research into step-by-step hands-on strategies.



Formative Assessment & Standards-Based Grading

By Robert J. Marzano

Available November! Learn how to design, interpret, and systematically use three different types of formative assessments and how to track student progress and assign meaningful grades.

Also available

Dr. Robert Marzano's Suite

Seven online resources connecting teacher growth to student achievement

Log on for free tips and resources

MarzanoResearch.com



learn how strategies manifest in the classroom. When this is the perspective, administrators and supervisors aren't the only ones who observe classrooms. Indeed, they aren't even the most important ones involved in making observations. Rather, teams of teachers should observe classes, using the district or school language of instruction as the framework for their observations. As a result of their observations, they may provide the observed teacher with comments summarizing what they saw. More important, members of the observing group gather to debrief on their experiences. Typically, this involves the observer teachers comparing how they saw other teachers using a par-

teachers in their classrooms. Groups of administrators descend on classrooms with clipboards and checklists, caucus briefly in the hallway, and then deliver a set of simplistic messages about what needs fixing. This kind of practice is antithetical to the purposes of instructional rounds and profoundly antiprofessional. (2009, p. 4)

This quote captures perfectly the sentiment expressed to me by many K-12 teachers across the country. They typically see walkthroughs as unprofessional because they focus on a narrow list of instructional strategies and feedback is given from the perspective that these strategies must be exhibited in every classroom.

Third, using strategies effectively is a means to an end. The ultimate criterion for successful teaching should be student knowledge gain. Classroom strategies are tools to produce knowledge gain. Of

course, this means someone must collect data on student learning. This has always been problematic because test data in the form of common assessments and benchmark assessments aren't easily collected regarding a specific observation that has been made with a specific teacher. Fortunately for the purposes of informing discussion about effective teaching, such data can be quite informal (see *District Leadership That Works* by myself and Tim Waters for more detail on this subject). Teachers can assess students' knowledge gain by developing and using pretests and posttests and computing a simple gain score for each student. More sophisticated mathematical calculations, such as residual scores, can easily be calculated if pretest and posttest data are available. A very efficient way to estimate students' knowledge gain is simply to ask students to rate how much they have learned in a given lesson or a set of lessons. In Hattie's analysis of the research on 138 variables that encompassed 146,142 effect sizes, students' rating of their own knowledge gain had the highest average effect size — over three times larger than the average effect size exhibited in the 138 variables. Hattie referred to this as "self-report grades." Student self-reports on their learning is an easy and apparently legitimate way to obtain information in the course of walkthroughs or instructional rounds regarding student achievement within the context of a specific lesson or set of lessons.

CONCLUSION

Classroom strategies in books like *Classroom Instruction That Works*, *Classroom Management That Works*, and *Classroom Assessment and Grading That Work* are good places to start. But districts and schools must move beyond simple lists to a comprehensive

The instructional strategies we identified might have a positive effect on student achievement in some situations — or a negligible or even negative effect on student achievement in other situations.

ticular strategy with how they use the same strategy in their classrooms. The emphasis is on the observer teachers using the information gleaned from their observations to reflect on their own practice.

This is at the heart of what City and her colleagues (2009) refer to as "instructional rounds." Briefly, instructional rounds are modeled on medical rounds. Although there are several versions of medical rounds, City and her colleagues explain that the most common manifestation is for groups of medical interns, residents, and supervising or attending physicians to visit patients and then discuss possible treatments. City and her colleagues explain how groups of teachers, instructional coaches, and administrators can do the same by visiting classrooms and then discussing what they observed. Although teachers who have been observed receive feedback regarding the group's observations, the discussions that follow are intended to enhance the expertise of the observers.

City and her colleagues emphasize that rounds are not to be used for evaluative purposes. Rather, they are to be used to increase the pedagogical skill of educators within a district or school through the reflective discussion that ensues. Unfortunately, in many schools and districts, walkthroughs have devolved into terse, formulaic feedback to teachers. As City and her colleagues note:

Unfortunately, the practice of walkthroughs has become corrupted in many ways by confounding it with supervision and evaluation of teachers. The purpose of some walkthroughs has been to identify deficiencies in classroom practice and to "fix" teachers who manifest these deficiencies. In many instances, judgments about what needs fixing are made on the basis of simplistic checklists that have little or nothing to do with direct experience of

framework or language of instruction that is the basis for professional dialogue. In terms of providing teachers with feedback, the focus must always be on student learning and the perspective must always be that instructional strategies are a means to an end. Checklist approaches to providing feedback to teachers probably don't enhance pedagogical expertise, particularly when they focus on a narrow list of instructional, management, or assessment strategies. In fact, such practice is antithetical to true reflective practice. As City and colleagues note, such behavior is profoundly anti-professional. **✦**

REFERENCES

- Black, Paul, and Dylan William. "Assessment and Classroom Learning." *Assessment in Education* 5, no. 1 (1998): 7-75.
- City, Elizabeth A., Richard Elmore, Sarah E. Fiarman, and Lee Teitel. *Instructional Rounds in Education: A Network Approach to Improving Teaching and Learning*. Cambridge, Mass.: Harvard Education Press, 2009.
- Ericsson, K. Anders, and Neil Charness. "Expert Performance: Its Structure and Acquisition." *American Psychologist* 49, no. 8 (1994): 725-747.
- Hattie, John. *Visible Learning: A Synthesis of Over 800-Meta-Analyses Relating to Achievement*. New York: Routledge, 2009.
- Kluger, Avraham N., and Angelo DeNisi. "The Effects of Feedback Interventions on Performance: A Historical Review, a Meta-Analysis and a Preliminary Intervention Theory." *Psychological Bulletin* 119, no. 2 (1996): 254-284.
- Leinhardt, Gaea. "Capturing Craft Knowledge in Teaching." *Educational Researcher* 19, no. 2 (1990): 18-25.
- Marzano, Robert J. *The Art and Science of Teaching: A Comprehensive Framework for Effective Instruction*. Alexandria, Va.: ASCD, 2007.
- Marzano, Robert J. *Classroom Assessment and Grading That Work*. Alexandria, Va.: ASCD, 2006.
- Marzano, Robert J., Jana Marzano, and Deborah Pickering. *Classroom Management That Works: Research-Based Strategies for Every Teacher*. Alexandria, Va.: ASCD, 2003.
- Marzano, Robert J., Deborah Pickering, and Jane E. Pollock. *Classroom Instruction That Works: Research-Based Strategies for Increasing Student Achievement*. Alexandria, Va.: ASCD, 2001.
- Marzano, Robert J., and Tim Waters. *District Leadership That Works: Striking the Right Balance*. Bloomington, Ind.: Solution Tree Press, 2009.
- Wang, Margaret C., Geneva D. Haertel, and Herbert J. Walberg. "Toward a Knowledge Base for School Learning." *Review of Educational Research* 63, no. 3 (1993): 249-294.

Learn from the Experts with PDK's Webinars

Join us from the comfort of your home, school, or office—all you need is a computer with an Internet connection and a phone. Seats are limited; reserve your spot at www.pdkintl.org/member/webinars.htm.



2009 PDK/GALLUP POLL RESULTS

Learn about these recently released findings directly from poll co-director William Bushaw, and be prepared to ask questions and offer ideas for next year's poll.

Date: September 16 • **Time:** 7:00 p.m. - 8:00 p.m. EDT

Presenter: William Bushaw, Executive Director, PDK International

Fee: Free (sponsored by PDK Educational Foundation)

SUBMITTING A MANUSCRIPT FOR PUBLICATION

Kappan Editor-in-Chief Joan Richardson will share the do's and don'ts of ensuring that your manuscript gets the attention of editors.

Date: October 8 • **Time:** 4:00 p.m. - 5:00 p.m. EDT

Presenter: Joan Richardson, Kappan Editor-in-Chief

Fee: Free to PDK members, \$49.95 for non-members

WRITING TO BE READ

Learn the conversational style of writing preferred by most professional magazines.

Date: November 5 • **Time:** 4:00 p.m. - 5:00 p.m. EST

Presenter: Joan Richardson, Kappan Editor-in-Chief

Fee: Free to PDK members, \$49.95 for non-members

The Professional
Association in
Education

PDK
International

Phi Delta Kappa International

408 N. Union Street

Bloomington, IN 47405-3800

PHONE 812-339-1156 • TOLL FREE 800-766-1156

File Name and Bibliographic Information

k0909ma1.pdf

Robert J. Marzano, Setting the Record Straight on “High-Yield” Strategies, *Phi Delta Kappan*, Vol. 91, No. 01, September 2009, pp. 30-37.

Copyright Notice

Phi Delta Kappa International, Inc., holds copyright to this article, which may be reproduced or otherwise used only in accordance with U.S. law governing fair use. MULTIPLE copies, in print and electronic formats, may not be made or distributed without express permission from Phi Delta Kappa International, Inc. All rights reserved.

Note that photographs, artwork, advertising, and other elements to which Phi Delta Kappa does not hold copyright may have been removed from these pages.

All images included with this document are used with permission and may not be separated from this editorial content or used for any other purpose without the express written permission of the copyright holder.

Please fax permission requests to the attention of KAPPAN Permissions Editor at 812.339.0018 or e-mail permission requests to kappan@pdkintl.org.

For further information, contact:

Phi Delta Kappa International, Inc.
408 N. Union St.
Bloomington, Indiana 47405-3800
812.339.1156 Phone
800.766.1156 Tollfree
812.339.0018 Fax

<http://www.pdkintl.org>

Find more articles using PDK's Publication Archives Search at pdkintl.org/utilities/archives.htm.