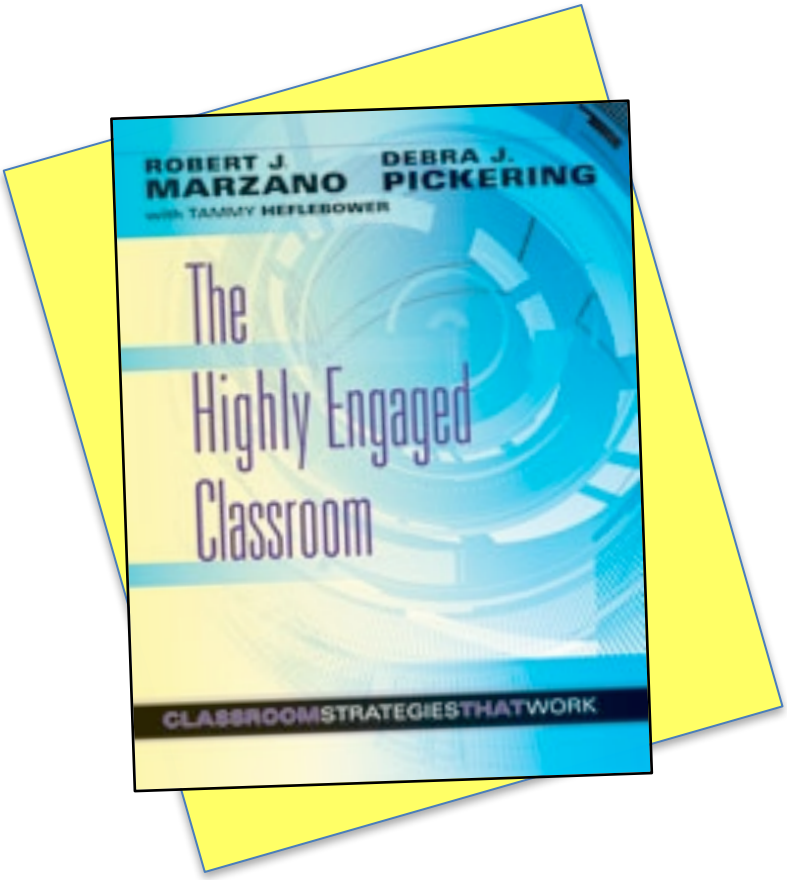
Achieving High Levels of Engagement in ALL Classrooms



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Marzano Research

THE NEW ART AND SCIENCE OF TEACHING

FEEDBACK

Providing and Communicating Clear Learning Goals

1. Providing Scales and Rubrics
2. Tracking Student Progress
3. Celebrating Success

Assessment

4. Informal Assessments of the Whole Class
5. Formal Assessments of Individual Students

CONTENT

Direct Instruction Lessons

6. Chunking Content
7. Processing Content
8. Recording and Representing Content

Practicing and Deepening Lessons

9. Structured Practice Sessions
10. Examining Similarities and Differences
11. Examining Errors in Reasoning

Knowledge Application Lessons

12. Engaging Students in Cognitively Complex Tasks
13. Providing Resources and Guidance
14. Generating and Defending Claims

Strategies That Appear in <u>All</u> Types of Lessons

15. Previewing
16. Highlighting Critical Information
17. Reviewing Content
18. Revising Knowledge
19. Reflecting on Learning
20. Purposeful Homework
21. Elaborating on Information
22. Organizing Students to Interact

CONTEXT

Engagement

23. Noticing When Students Are Not Engaged and Reacting
24. Increasing Response Rates
25. Using Physical Movement
26. Maintaining a Lively Pace
27. Demonstrating Intensity and Enthusiasm
28. Presenting Unusual Information
29. Using Friendly Controversy
30. Using Academic Games
31. Providing Opportunities for Students to Talk About Themselves
32. Motivating and Inspiring Students

Rules and Procedures

33. Establishing Rules and Procedures
34. Organizing the Physical Layout of the Classroom
35. Demonstrating "Withitness"
36. Acknowledging Adherence to Rules and Procedures
37. Acknowledging Lack of Adherence to Rules and Procedures

Relationships

38. Using Verbal and Nonverbal Behaviors that Indicate Affection for Students
39. Understanding Students' Backgrounds and Interests
40. Displaying Objectivity and Control

Communicating High Expectations

41. Demonstrating Value and Respect for Reluctant Learners
42. Asking In-Depth Questions of Reluctant Learners
43. Probing Incorrect Answers with Reluctant Learners

Goals for our session:

- Learn about instructional implications;
- Review research on engagement strategies;
- Delve deeper into teachers' roles in the engagement process;
- Experience strategies for engagement;
- Connect student engagement to teacher-student relationships and high expectations for all students; and
- Learn how four questions determine how involved students are in classroom activities.
  - -How Do I Feel?
  - _Am I interested?
  - -Is this important?
  - -Can I Do This?

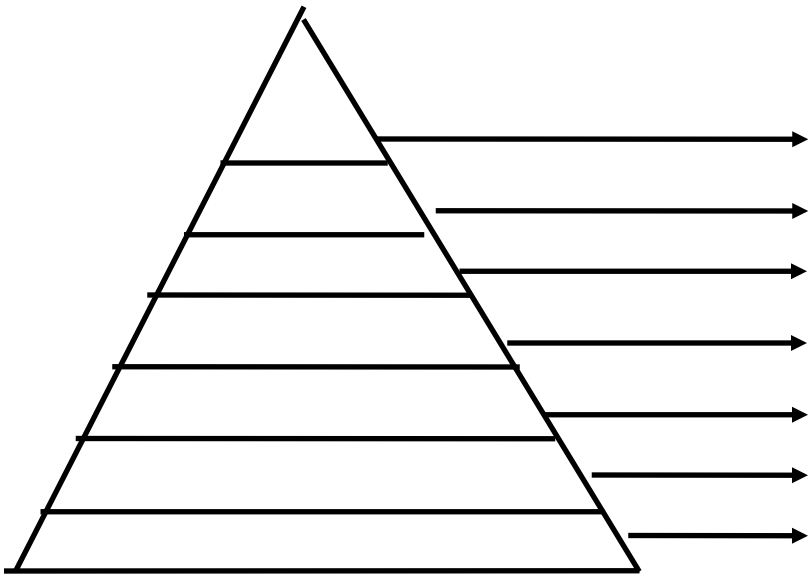
"In a recent survey by the National Education Association, for example, teachers said that in general, approximately 60% of their students were "disengaged" or "unmotivated."

Feelings associated with engagement	Feelings associated with disengagement
• enthusiasm	• boredom
• interest	• worry
• enjoyment	• anxiety
• satisfaction	• self-blame
• pride	• disinterest
• vitality	• anger
	• frustration
	• sadness

From: Why aren't students more engaged?
To: How can WE make our classrooms more engaging?

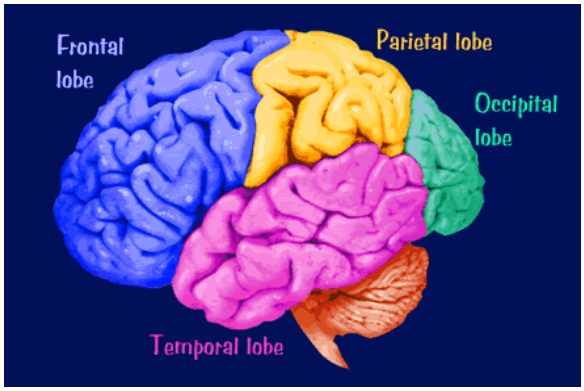
Item Bank: Discussion Groups, Lecture, Demonstration, Audio-visual, Teach others, Practice by doing, Reading

Boosting Retention



Adapted from David Sousa's figure 3.8 in his text, How the Brain Learns

"The more we understand the brain, the better we'll be able to design instruction to match how it learns best."
Pat Wolfe



Long-term Memory:

- Memory is a process, not a fixed thing or singular skill;
- Information needs to make **sense** to the learner;
- Information needs to having **meaning** to the learner; and
- The brain constantly seeks patterns.

The Brain

Adult human brain weighs a little over 3 lbs;
It is about the size of a small grapefruit and can fit in the palm of your hand;
The brain works ceaselessly, even when we are asleep;
Although it represents only about 2 percent of our body weight, it consumes nearly 20-25 percent of our calories! (Sousa, *How The Brain Learns, 2001).*

Notes:

Situational Interest vs Individual Interest

The situation captures the student's attention

Triggered	Maintained
(Capturing attention)	(holding interest over time)

Three Types of Memory

Sensory	Working	Permanent
(temporary storage of memory)	(where data are actively processed)	(all stored and all learned knowledge)

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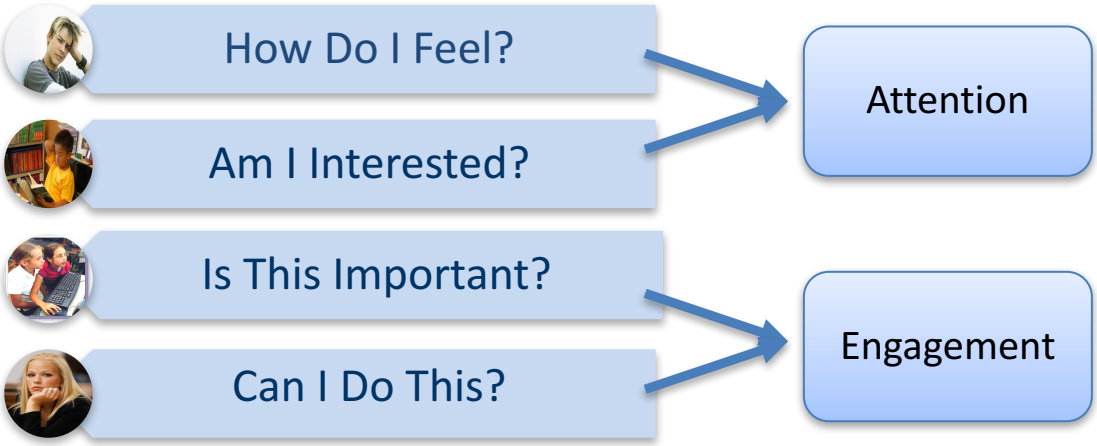
Approximate attention spans…

- For pre-adolescents:
  - Change up instruction approximately every 5-10 minutes.
- For adolescents into adults…
  - Change up instruction approximately every 10-20 minutes

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Dr. Marzano's Four Questions:



Notes:

Question One: How Do I Feel?

"If students sense that they are not welcome, accepted, and supported in the classroom, the probability is low that they will engage in the activities in the classroom."
Marzano, 2011

Aspects of Emotional Engagement Influenced by the Classroom

- Students' level of energy
- A teacher's positive demeanor
- Students' perceptions of acceptance

Notes:

Strategies to increase the chance that students will have a positive response to the question, *"How do I feel?"*

Strategy	Ideas
Effective Pacing -Ties directly to students' energy levels. -Too slow: Energy drops and attention wanes. -Too fast: Students can become confused and frustrated.	• Administrative tasks • Transitions • Seatwork • Presentation of new content
Physical Movement -"Amazingly, the part of the brain that processes movement is the same part of the brain that processes learning. Eric Jensen, *Teaching With the Brain in Mind*, 2005 -Movement has an impact on energy that affects students' ability or disposition to attend.	• Stretch breaks • Movement related to rehearsal •
Demonstrating Intensity and Enthusiasm -Personal Stories -When a teacher tells stories, it invites students to look for personal connections to content. -Verbal and Nonverbal Signals -Zest for Teaching	• Raise voice •
Using Humor -Associated with a 40 percentile point gain in instructional effectiveness	• Funny headlines •
Building Positive Relationships -Peer relationships are equally as important as teacher/student relationships. -The longer students were rejected by their peers, the less likely they were to participate in classroom activities. (Ladd, Herald-Brown, Kichel, 2009) **Bullying:** -Bullying takes many forms. Each day an estimated 160,000 children refuse to go to school because they're afraid of the physical and verbal aggression of their peers. -The availability of the Internet, social-networking sites and text messaging has resulted in more cases of cyberbullying, or digital attacks. -Bullying is a form of victimization or abuse, and it is wrong. Children should be able to attend school or take part in community activities without fear of being harassed, assaulted, belittled, or excluded.	• 2 minute intervention • "I don't know, and I need you…" • Calling students by name… • Connecting student to something else… **Notes:**

Question Two: Am I interested?

Strategies	Application Ideas
1. Use games and inconsequential competition.	• Make sure that all games have an academic focus. • Regroup students so that all students experience winning and losing. • Tally points, but do not use them to increase or decrease scores or grades. **Games** • Vocabulary games: Which one doesn't belong? • TABOO • Show, but don't tell. • Who am I? • What is the question? • Classroom feud • Turn questions into games. • Talk a mile a minute.

Notes:

Question Two: Am I interested?

Strategies	Application Ideas
2. Initiate friendly controversy.	**Key strategies** • The class vote • The debate model • The town hall meeting • The legal model • Analyzing perspective • Conduct a folded or split lineup.
3. Introduce unusual information.	• People naturally are curious, so atypical information within a content area can pique students' attention. • **Great resource:** *Legends, Lies, & Cherished Myths of American History* by Richard Shenkman (1988) debunks widely held but untrue notions of American history.
4. Question to increase response rates. • Teachers asked an average of 50.6 questions; students posed only 1.8 questions in a 30-minute period. (Susskind, 1979) • Most teacher questions are at the lowest cognitive level—known as fact, recall, or knowledge. • Not all students are accountable to respond to all questions.	• Questions promote student learning. Teachers should plan their questions. • Questions should match instructional objectives and promote thinking. • Teachers should purposefully plan and ask questions that require students to engage in higher-level thinking. • Use paired responses (A–B partner response). • Call on students randomly (Popsicle™ sticks with names).

Question Two: Am I interested?

Strategies	Application Ideas
• Teachers frequently call on volunteers, and these volunteers constitute a select group of students (Walsh & Sattes, 2005). • Teachers typically wait less than 1 second after asking a question before calling on a student to answer. ○ They wait even less time before speaking after the student has answered. • Teachers often accept incorrect answers without probing; they frequently answer their own questions. • Students ask very few content-related questions.	• Use response chaining. • Use choral responses. • Use quick draws (remember the tri lesson?) • Use hand signals (thumbs up–down). • Use response cards. • Use response technologies. Both wait times 1 and 2 promote student thinking and foster more students formulating answers to more questions. • Value student questions. ○ Help students formulate good questions. ○ Make time for student questions. ○ From passive to active types of questions ○ Compare–contrast questions (Move from concrete to abstract.) ○ Personification questions (different points of view) ○ Scoot ○ www.teachnet.com/lesson/misc/winnergame022500.html ○ www.elainefitzgerald.com/ jeopardy.htm ○ esu4vocabularystrategies.wikispaces.com

Question Three: Is this important?

Basics Facts

- More than 100 studies have been conducted.
- Effect sizes range from .26 to .82.
- Percentile gain is 10 to 29.
- "If students do not perceive classroom tasks as important, engagement will be muted or nonexistent."

How to Help Students Respond Positively to "Is This Important?"

- Make comparisons to students' interests.
- Connect to students' daily lives.
- Connect to students' life ambitions.
- Encourage application of knowledge.

"If students do not perceive classroom tasks as important, engagement will be muted or nonexistent."

—Marzano, Pickering, & Heflebower (2011), p. 87

Notes:

Question Three: Is this important?

Strategies	Application Ideas
1. Make comparisons to student interests.	
2. Provide choice.	**Options for reporting** Written report Oral report Dramatic presentation Debate Videotaped report Demonstration or simulation Web application
3. Apply to the real world.	www.freetech4teachers.com www.diigo.com www.wordle.net www.fablevision.com www.twitter.com www.skype.com www.livebinders.com www.wolframalpha.com www.Glogster.edu www.voicethread.com www.khanacademy.org www.facebook.com www.polleverywhere.com www.toondoo.com www.wallwisher.com **Other** Individual response systems Clickers Google Apps
4. Encourage personal projects.	

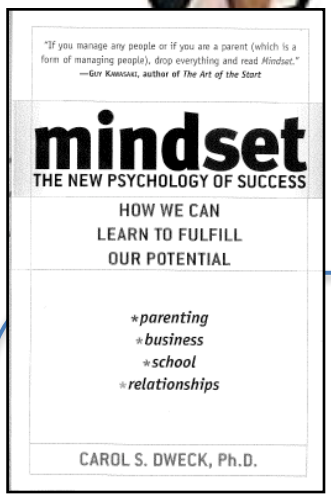
Question Four: Can I Do This?

- If the answer is yes, students are more likely to engage.
- If the answer is no, students might lessen or abort their involvement - even if they have positive feelings about the task, are interested in the topic, and perceive it as related to their personal goals. (Marzano, 2010)
- "Learning is risking. Every time we venture to learn something new, we take a big risk beyond our comfort zone." (Quantum Teaching: Orchestrating Student Learning, 1999).
- ***Self-efficacy*** is _____.
- If a student believes that they can do something, they can. If they believe they can't, they can't.
- Some students believe that they are born with a certain amount of ability and can't do better. In their mind, effort doesn't count.

The two words "I CAN" are far more important than the two letters "IQ".

Notes:





Fixed mindset:
Belief that your intelligence and abilities cannot be changed; fear making mistakes.
Growth mindset:
Belief that your abilities and intelligence can change through effort and learning; view mistakes as learning opportunities.
Mindset, Carol Dweck, 2007

Notes:

Four strategies can enhance students' sense of self-efficacy.

Use effective praise and verbal feedback

Track and study progress

Provide examples of efficacy

Teach about efficacy

Use Effective Praise and Verbal Feedback

Every word and action from adult to student sends a message.
Refrain from praising intelligence or talent. Rather, focus on the process they used: **strategies, effort, or choices.**
Watch and listen to yourself when a student or player messes up.

Track and Study Progress

- Develop self-efficacy by having students track their progress, and then examine the relationship between behavior and academic achievement.
- Tracking student progress
- Setting personal goals
- Examining effort and preparation

Provide Examples of Efficacy

- Stories
- Quotes
- Movies
- Other?

Teach About Efficacy

- Enhanced achievement results from teaching students…
  A. The human brain is elastic.
  B. Competence is enhanced through hard work and practice.

"It's not always the people who start out the smartest who end up the smartest." Alfred Binet

- *High Expectations for All Students*

What Will I Do to Communicate High Expectations for ALL Students?

> *"Don't tell me you believe all kids can learn. Tell me what you're doing about the kids who aren't learning."* Rick DuFour

- Identify low expectancy (LE) students;
- Identify differential treatment of LE students;
- Use verbal and nonverbal messages that LE students are valued;
- Ask questions of LE students;
- Stay with LE students when they answer questions incorrectly;
- Engage in the following behaviors with ALL students—especially 'low-expectancy' students:
  - -Make eye contact frequently;
  - -Smile at appropriate times;
  - -Make appropriate contact (hand on shoulder);
  - -Maintain proximity (interest);
  - -Engage in playful dialogue;
  - -Demonstrate gratitude for response;
  - -Do not allow negative comments from other students;
  - -Point out what is correct/incorrect;
  - -Restate the question; and
  - -Provide ways to temporarily let students off the hook.

Notes:

Self-Assessment Scale: How Do I Feel?

	0 Not Using The teacher never uses this strategy.	1 Beginning The teacher sometimes uses this strategy, but uses it incorrectly.	2 Developing The teacher uses this strategy, but in a mechanistic way.	3 Applying The teacher uses this strategy and monitors how well it works.	4 Innovating The teacher knows this strategy well enough that he or she has created his or her own version of it.
Using Effective Pacing					
Administrative tasks	0	1	2	3	4
Transitions	0	1	2	3	4
Seatwork	0	1	2	3	4
Presentation of new content	0	1	2	3	4
Incorporating Physical Movement					
Movement to lift energy	0	1	2	3	4
Movement to further understand content	0	1	2	3	4
Movement for the whole class or school	0	1	2	3	4
Demonstrating Intensity and Enthusiasm					
Personal stories	0	1	2	3	4
Verbal and nonverbal signals	0	1	2	3	4
Zest for teaching	0	1	2	3	4
Using Humor					
Self-directed humor	0	1	2	3	4
Funny headlines or quotes	0	1	2	3	4
Movie clips and media entertainment	0	1	2	3	4
A class symbol for humor	0	1	2	3	4
Building Positive Teacher-Student and Peer Relationships					
Ensure fair and equitable treatment of all students	0	1	2	3	4
Show interest in and affection for students	0	1	2	3	4
Identify and use positive information about students	0	1	2	3	4

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Self-Assessment Scale: Am I Interested?

	0 Not Using The teacher never uses this strategy.	1 Beginning The teacher sometimes uses this strategy, but uses it incorrectly.	2 Developing The teacher uses this strategy, but in a mechanistic way.	3 Applying The teacher uses this strategy and monitors how well it works.	4 Innovating The teacher knows this strategy well enough that he or she has created his or her own version of it.
Using Games and Inconsequential Competition					
Vocabulary games	0	1	2	3	4
Turn questions into games	0	1	2	3	4
Initiating Friendly Controversy					
Class vote	0	1	2	3	4
Debate model	0	1	2	3	4
Town hall meeting	0	1	2	3	4
Legal model	0	1	2	3	4
Perspective analysis	0	1	2	3	4
Presenting Unusual Information					
Introduce a lesson	0	1	2	3	4
Allow students to collect interesting facts	0	1	2	3	4
Invite guest speakers	0	1	2	3	4
Questioning to Increase Response Rates					
Call on students randomly	0	1	2	3	4
Paired response	0	1	2	3	4
Wait time	0	1	2	3	4
Response chaining	0	1	2	3	4
Choral response	0	1	2	3	4
Simultaneous individual response	0	1	2	3	4

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Self-Assessment Scale: Is This Important?

	0 **Not Using** The teacher never uses this strategy.	1 **Beginning** The teacher sometimes uses this strategy, but uses it incorrectly.	2 **Developing** The teacher uses this strategy, but in a mechanistic way.	3 **Applying** The teacher uses this strategy and monitors how well it works.	4 **Innovating** The teacher knows this strategy well enough that he or she has created his or her own version of it.
Connecting to Students' Lives					
Comparison tasks	0	1	2	3	4
Analogical reasoning tasks	0	1	2	3	4
Connecting to Students' Life Ambitions					
Personal projects	0	1	2	3	4
Encouraging Application of Knowledge					
Design cognitively challenging tasks	0	1	2	3	4
Provide choice	0	1	2	3	4
Present real-world applications	0	1	2	3	4

Self-Assessment Scale: Can I Do This?

	0 Not Using The teacher never uses this strategy.	1 Beginning The teacher sometimes uses this strategy, but uses it incorrectly.	2 Developing The teacher uses this strategy, but in a mechanistic way.	3 Applying The teacher uses this strategy and monitors how well it works.	4 Innovating The teacher knows this strategy well enough that he or she has created his or her own version of it.
Tracking and Studying Progress					
Track academic progress over time	0	1	2	3	4
Set personal academic goals	0	1	2	3	4
Examine effort and preparation	0	1	2	3	4
Using Effective Verbal Feedback					
Types of verbal feedback to avoid	0	1	2	3	4
Types of verbal feedback to use	0	1	2	3	4
Providing Examples of Self-Efficacy					
Stories	0	1	2	3	4
Quotations	0	1	2	3	4
Teaching Self-Efficacy					
Distinguish between growth and fixed theories	0	1	2	3	4
Have students identify their personal theories	0	1	2	3	4
Keep the conversation alive	0	1	2	3	4

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RESOURCES

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High Expectations for All

Robert J. Marzano

The idea of communicating high expectations for all students burst onto the K–12 education scene in the late 1960s. An important study indicated that teachers form expectations about their students' chances for academic success and then interact with students on the basis of those expectations.[1] That is, teachers treat their "high-expectancy" students differently from their "low-expectancy" students. Students quickly recognize this differential treatment and begin to act in accordance with the expectations that the treatment implies.

Having high expectations for all students is, of course, a good and noble goal. Two problems arise here, however. First, expectations are subtle and difficult to change. Teachers may be unaware that they have low expectations for some students; even when they become aware, they may have difficulty changing their expectations because their beliefs and biases have developed over the years. Second, what actually communicates expectations to students is teacher *behavior*. If teachers consciously work to change their biases but don't change their behavior toward those students from whom they have tended to expect less, their change of attitude will have little effect on student achievement.

A Four-Step Process

In working with teachers on this issue, we have found it helpful to think of communicating high expectations as an instructional strategy that involves four steps.

Step 1: Identify students for whom you have low expectations.

Do this as early in the school year or the course as possible because once you form expectations, it's hard to change them. Teachers might simply scan their class rosters and mentally place students into two categories—"I expect them to do well" and "I don't expect them to do well." This is not an easy task because it requires teachers to admit that they have formed negative expectations about some students.

Step 2: Identify similarities in students.

This is the most difficult part of the strategy because none of us likes to acknowledge that we automatically form conclusions about certain types of people. For example, a teacher might find that the students for whom she has low expectations all tend to look a certain way, speak a certain way, or come from a certain ethnic group. Research has demonstrated that such characteristics are commonly the basis for early expectations about students. If teachers do find patterns in their expectations, it does not necessarily mean that they are racists or bigots. To some extent, all adults have preconceived notions regarding different groups of people, simply because they are influenced by the biases of the people who raised whom they interacted as children and by their personal experiences growing up. A bigot or a racist knowingly or unknowingly behaves in accordance with such notions. However, an individual who actively seeks to behave in a manner that is *not* controlled by biased patterns of thoughts or behaviors is anything but a bigot.

Step 3: Identify differential treatment of low-expectancy students.

In practice, teachers' *behaviors* toward students are much more important than their expectations: Students cannot know what teachers are thinking, but they do observe how teachers behave—and they make inferences on the basis of these behaviors.

In general, there are two ways that teachers treat low-expectancy students differently. One involves the general affective tone established between teacher

and student. With low- expectancy students, teachers tend to make less eye contact, smile less, make less physical contact, and engage in less playful or light dialogue.

The second way involves the type and quality of interactions regarding academic content. Teachers tend to call on low-expectancy students less often, ask less challenging questions, delve into their answers less deeply, and reward them for less rigorous responses. Teachers can determine their differential treatment of low-expectancy students simply by noting and recording their behavior toward those students.

Step 4: Treat low-expectancy and high-expectancy students the same.

It is fairly easy to establish a positive affective tone with all students. Teachers simply make sure that they exhibit the same positive behaviors to all students—smiling, involving students in good-natured discussions, and engaging in appropriate physical contact. All students will typically respond well to this type of behavior.

Providing equal treatment is more difficult when it comes to academic interactions, however, particularly when questioning students. Students for whom teachers have low expectations become accustomed to the teacher asking them fewer and less challenging questions than other students. When teachers change this behavior, some students might feel uncomfortable. They will probably need to go through this uncomfortable phase, however, to arrive at a place where they will risk putting forth new ideas and asking questions that disclose their confusion about certain topics. This is the goal—for all students to embrace complex and challenging issues and for the teacher to acknowledge and respect their ideas.

Out in the Open

Addressing the issue of low expectations and differential treatment is a

powerful strategy to enhance the achievement of those students who traditionally do not do well in the K–12 system. One of the more challenging aspects of effective teaching is confronting one's own expectations openly and productively.

Sources

1 Rosenthal, R., & Jacobs, L. (1968). *Pygmalion in the classroom*. New York: Holt, Rinehart, and Winston.

2 Dusek, J. B., & Gail, J. (1983). The bases of teacher expectations: A meta-analysis. *Journal of Educational Psychology, 75*(3), 327–346.

Notes:

What will you do tomorrow based upon what you heard today?
How will you move students from "*Can I Do This?*" to *"I will try,"* to *"Yes, I Can!"*

Notes:

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