

# Classroom Engagement: Four Views

**One: Marzano, Robert J.; Pickering, Debra J. (2013). The Highly Engaged Classroom**

## Cognitively Challenging Tasks

When students are asked merely to regurgitate information in a repetitive fashion, they will not see the relevance of the information they have learned. In contrast, when students are challenged to use the information they have learned to solve problems, make decisions, conduct investigations, and create hypotheses regarding real-world issues, they are much more likely to see what they are learning as important.

Csikszentmihalyi's theory of flow dissects exactly what is happening when people are completely engaged in a task. Jere Brophy (2004) offered this description:

We remain aware of the goals of the task and of the feedback generated by our responses to it, but we concentrate on the task itself without thinking about success or failure, reward or punishment, or other personal or social agendas. At least for a little while, we focus completely on meeting the challenges the task offers, refining our response strategies, developing our skills, and enjoying a sense of control and accomplishment. (p. 11)

Csikszentmihalyi examined the kinds of activities people were engaged in when they found themselves completely absorbed in the task at hand— which he refers to as *flow*. While he expected those activities to be ones that, “occur during relaxing moments of leisure and entertainment” he found quite the opposite. In fact, flow experiences “occur when we are actively involved in challenging tasks that stretch our physical or mental abilities.” Brophy notes that Fred Newmann also found that students are more engaged in tasks that are challenging. Newmann defined classes that challenged students with cognitively complex tasks as ones that used thoughtfulness.

Thoughtful tasks:

- Focus on sustained examination of a few topics rather than superficial coverage of many.
- Encourage discourse that is characterized by substantive coherence and continuity.
- Challenge students to clarify or justify their assertions.
- Generate original and innovative ideas.

Newmann found that students reported thoughtful classes as being more difficult than those that were not, but they also reported being more engaged by these classes. Clearly cognitively challenging tasks are engaging in their own right, and this helps students answer affirmatively to the question “Is this important?” though, noted that there is yet another effect of cognitively challenging tasks. He said “cognitive modeling is powerful not just as an instructional device but as a way to show students what it means to approach a task with motivation to learn” (Brophy, p. 295). Stated differently, when students are challenged they are more likely to see what they are learning as being important, and they are more likely to see learning itself as important and influential in their lives.

Cognitively challenging classrooms are important for a bigger picture reason as well. It is clear that the 21st century has brought many changes worldwide. Ken Kay (2010) noted that “More than three-quarters of all jobs in the United States are now in the service sector. Manual labor and routine tasks have given way to interactive, nonroutine tasks— even in many traditional blue-collar occupations” (p. xvii). Students today will hold more cognitively demanding jobs than ever before. They will hold a greater number of jobs as well, and many of those jobs are in fields that have yet to be invented

(ASCD, 2009). As a supervisor for the tech giant Apple said, “any employee who needs to be managed is no longer employable” (Kay, 2010, p. xxi).

## Two: Consortium on Chicago School Research (CCSR) “Teaching Adolescents To Become Learners - The Role of Noncognitive Factors in Shaping School Performance: A Critical Literature Review”

**Academic Mindsets** are the attitudes or beliefs one has about oneself in relation to academic work. Positive academic mindsets motivate students to persist at schoolwork (i.e., they give rise to academic perseverance), which manifests itself through better academic behaviors, which lead to improved performance. There is also a reciprocal relationship among mindsets, perseverance, behaviors, and performance. Strong academic performance “validates” positive mindsets, increases perseverance, and reinforces strong academic behaviors. Note that this reciprocal, self-perpetuating system also works in a negative loop. Negative mindsets stifle perseverance and undermine academic behaviors, which results in poor academic performance. Poor performance in turn reinforces negative mindsets, perpetuating a self-defeating cycle.

Each of the four academic mindsets is briefly described here:

1. **I belong in this academic community.** The first mindset involves a sense that one has a rightful place in a given academic setting and can claim full membership in a classroom community. Educational theorists have long held that learning is a social activity and that understanding is constructed through interaction with others (Dewey, 1958; Vygotsky, 1978). Accordingly, students need to feel as though they belong to a community of learners and that their academic self is a “true” self (Harvey & Schroder, 1963; Oyserman, Bybee, & Terry, 2006). A long line of research evidence shows that having a sense of belonging in a school or classroom improves a student’s academic performance.
2. **My ability and competence grow with my effort.** The second mindset rests on the belief that one’s academic ability can improve in response to one’s efforts, rather than being fixed at a given level and outside of one’s control. Notably, across the empirical literature, one’s beliefs about intelligence and attributions for academic success or failure are more strongly associated with school performance than is one’s actual measured ability (i.e., test scores).
3. **I can succeed at this.** A third mindset that impacts the degree to which students persevere in academic work and exhibit strong academic behaviors relates to beliefs about their abilities to succeed at a given task. Individuals tend to engage in activities that they feel confident in their ability to complete and to avoid those in which they lack such confidence (Bandura, 1986).
4. **This work has value for me.** A fourth mindset involves a student’s sense that the subject matter he or she is studying is interesting and holds value. Value can be variously defined as the importance of doing well on a task (attainment value); gaining enjoyment by doing a task (intrinsic value); or serving a useful purpose or meeting an end goal that is important by completing a task (utility value) (Eccles et al., 1983).

Overall, the evidence clearly demonstrates that the mindsets outlined above each increase students’ academic perseverance and improve academic behaviors, leading to better performance as measured by higher grades. When a student feels a sense of belonging in a classroom community, believes that effort will increase ability and competence, believes that success is possible and within his or her control, and sees school work as interesting or relevant to his or her life, the student is much more likely to persist at academic tasks despite setbacks and to exhibit the kinds of academic behaviors that lead to learning and school success.

Three: Newmann, Fred; King, Bruce M.; Carmichael, Dana L. (2007). Authentic Instruction and Assessment: Common Standards for Rigor and Relevance in Teaching Academic Subjects.

### **Value Beyond School**

Meaningful intellectual accomplishments have utilitarian, aesthetic, or personal value. When adults write letters, news articles, organizational memos, or technical reports; when they speak a foreign language; when they design a house, negotiate an agreement, or devise a budget; when they create a painting or a piece of music—they try to communicate ideas that have an impact on others. In contrast, most school assignments, such as spelling quizzes, laboratory exercises, or typical final exams are designed only to document the competence of the learner, and lack meaning or significance beyond the certification of success in school.

We use Value Beyond School to emphasize not simply activity or topics that may be interesting to students, but those involving particular intellectual challenges that when successfully met would have meaning to students beyond complying with teachers' requirements. Intellectual challenges raised in the world beyond the classroom are often more meaningful to students than those contrived only for the purpose of teaching students in school.

Lessons can have value for students beyond simply achieving success in school by a) addressing an actual public problem of some contemporary significance; b) building on students' personal experiences to teach important ideas in the disciplines; and c) having students communicate their knowledge to others beyond the classroom in ways that assist or influence others.

Four: Richard Strong, Harvey Silver, Matthew Perini, and Greg Tculesc. (2003)  
"Boredom and Its Opposite"

### **The Drive Toward Self-Expression**

The drive toward self-expression, like all the human interests, is stronger in some people than in others. But all of us have some longing to be unique, to have our differences acknowledged and nourished, to find and express those kernels within us that belong to ourselves alone, and to use those kernels to grow a life that belongs to us and no other.

### **Stimulating Creativity in a Math Lab**

In an unusual math classroom filled with paints and easels, clay and board games, the 5th graders gather at tables to work on stacks of problems with titles like Topology Tremors, The Game of Life, and The End of Logic. Four days a week, in their regular math classes, they take speed tests, do mental math, and practice, practice, practice the operations in which they must become fluent to thrive as young mathematicians. On the fifth day, they come here to pursue their own interests. Two students investigate the nature of Egyptian fractions; four others use probability to create a new board game, half luck and half strategy; still others write a how-to book of logic puzzles for 3rd graders.

Around the edges of the room are the "stealing piles"—stacks of work from previous years' students from which these students will take ideas for problems or learn new ways to present their own discoveries. Class usually begins with a mini-lesson, in which the teacher models and the students discuss strategies for mathematical investigation or presentation. After the mini-lesson, students proceed to their own work. Near the end of the period, students gather in an Authors Group to discuss what they did and what problems they confronted that day.

### **Tools for Increasing Student Interest in Self-Expression**

The math lab exemplifies four elements that can help us awaken students' drive toward self-expression: choice of projects and guidance in making good choices; modeling of strategies

that can help students identify, define, and shape their own purposes and projects; adult and student samples of similar work from which they can borrow both inspiration and technique; and time to discuss their work and the problems that they face in pursuing it. Thus, when a student or class is bored, we might ask such questions as

- What role does choice play in my classroom?
- Do I regularly model the strategies that students need to shape their projects to their own interests and concerns?
- Do I make a rich set of samples available for students to study?
- How much time and guidance do students have to explore their work and their problems with it?

Mastery. Understanding. Self-expression. Three natural human interests. Three ways to motivate students and overcome boredom. Why in the world might some students still be bored?

## **The Need to Relate**

As humans, we all share a need to interact with others. We all hope that our work is not just an intellectual exercise or an expression of our own point of view, but also of value and interest to others.

### **Working Together for a Cause**

A number of years ago, a young boy in Texas was hit by a car while riding his bike. He was not wearing a bike helmet at the time, and he suffered serious damage to his brain.

A teacher in a neighboring elementary school asked her students a simple question: What should we do about this? Working with the teacher, the students decided to launch a campaign to pass a city ordinance requiring bicycle riders to wear helmets. During the next few months, the students corresponded with several city officials about the ordinance-passing process. They collected existing city ordinances and analyzed them in terms of both language and form, and then used their analysis to produce their own bike helmet ordinance. They interviewed city officials and conducted a survey to collect evidence to be used in arguing for their ordinance and then used the interviews and survey data to construct a rubric to evaluate their proposed presentation to the City Council. Following their presentation, the City Council passed the law.

### **Tools for Increasing Interpersonal Interest**

Today, many teachers are helping their students learn about and change the world around them. In doing so, they have awakened some students from the sleep of boredom. But awakening our common drive toward relationship and meaning requires more than projects rooted in the lives of our students and the world that surrounds them. It also requires

- Teaching students investigative strategies for collecting and organizing information about that world (for example, the bike survey and interviews).
- Providing samples of adult products from which students can draw the inspiration and ideas that they need to create products and performances that work in the world.
- Developing criteria and rubrics with which to reflect on and improve performance.
- Identifying audiences, clients, and customers who need or appreciate the work and provide feedback for improvement.