# **Mental Models**

#### Strategy 1: How to do things in class

- 1.a Divide and Limit Information
- 1.b Be Consistent
- 1.c Check on Students Soon and Often
- 1.d Be Redundant
- 1.e Create Structure
- 1.f Demonstrate Patterns

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# 1. How to Do Things in Class

Make sure students have a clear understanding of how to do things in class. Spend time teaching the "how to" of lessons. Write out directions, post rules and regulations, and invest time in training students to work effectively in the classroom. Focus the "how to" on as many different learning styles as possible.

# 1.a-Divide and Limit Information

Divide information into small bits. Presenting smaller units of information increases the number of closure points. Presenting students with less information at one time gives those low in mental models more points where they can stop, check, and take stock. It also helps them arrive at closure sooner, which motivates them to keep going.

# 1.b-Be Consistent

Students who lack mental models may have difficulties even when you are consistent. When you are inconsistent, they feel as if they are walking in quicksand; they do not know where to take the next step because everything is constantly shifting. These students need disciplined discipline. With any discipline system, the kiss of death is inconsistency. Say what you will do, and then do what you say.

# 1.c-Check on Students Soon and Often

By regularly checking on students who lack mental models, you help them stay on track. Sometimes they do not even know what they do not understand. "Practice makes permanent," so get to them quickly when you are introducing new material. Make this a priority after you have given an assignment.

### 1.d-Be Redundant

Working with students low in mental models requires persistence, patience, and a willingness to say things over and over again. Find out the learning styles of these students, and then use more than one learning style (kinesthetic, tactile, auditory, visual, etc.) to communicate with them. These students often respond to peer or adult tutoring and derive pleasure from completion of simple tasks.

# 1.e-Create Structure

Students low in mental models need structure and routine. It is helpful to them to be able to count on organization that will be the same tomorrow as it was today because:

- Structure reduces ambiguity.
- Reducing ambiguity lowers anxiety.
- Lowering anxiety increases learning.

### 1.f-Demonstrate Patterns

Creative work is often a stretch for students low in mental models. Since they need clarity and structure to feel successful, their creativity suffers. Teachers who enjoy creative students often find students low in mental models uninspiring.

- Patterns help. If you show these students the pattern for Haiku poetry, they can often follow it. Give them an outline for their book review, the four steps for problem solving, the five parts of a business letter and their achievement improves. If they have a model to follow, they are more likely to be successful.
- Acronyms also help students low in mental models. Give them the 3 Cs of the Classroom: Caring, Cooperation, and Choices. Show them the 4 Ds of Westward Expansion: Determination, Direction, Distance, and Dissatisfaction. Teach them STAR: Stop, Think, Act, Review.
- The use of graphic organizers also helps these students develop mental models. Ask students to take notes on graphic organizers, and teach their use for study purposes.

"I am going to read Shannon's paper now." (self-reference)

"I told her I would do it today, and it is important to me to keep my commitments" (responsibility connection).

"I am going to talk to Mr. Harris. I want to tell him how much I enjoyed that book he loaned me (self-reference). I think it is important to share appreciation with others" (responsibility connection).

As a variation, you can reverse the self-reference and the responsibility connection.

# Example:

"I think it is important to share appreciation with others (responsibility connection). I want to tell Mr. Harris how much I enjoyed that book he loaned me. I am going to go talk to him right now (self-reference)."

# 2. Make Expectations Clear and Simple

Anything you can do to reduce ambiguity will help students understand expectations. Let students know what you expect of them, and make standards of performance clear. Let them know what "quality" work looks like and sounds like in terms of productivity, behavior, relationships, and self-responsibility.

# Example:

• If you expect a quality science notebook turned in, tell students what you want, have them read directions for what you want, and show them an example of a quality science notebook so that they can see and touch what you expect.

# 2.a- Use Teacher Talk -"Next Time"

Using the phrase "Next Time" helps students understand how to change their behavior to meet your expectations.

# Examples:

- "Next time, please let me finish my sentence before you begin talking."
- "Next time, please show me where you checked your work."
- "Next time, please put all your trash in your lunch bag before you throw it away."

# 2.b- See One, Do One, Teach One

This is a helpful learning strategy for students lacking mental models, whether they are learning academics or responsible behaviors, long division or concentration skills. No matter what they are learning, they need to see an example. They need to see the model, then they need to perform the skill. Most importantly, they need to teach it. It

is teaching that makes these skills stick in long-term memory.

Describe something that students need to learn in your classroom that is appropriate for this strategy. Tell how you will set the model up so students see the skill, do it, and teach it.

# 2.c- Hold Students Accountable

Make sure students face the consequences of their behavior. This means you must follow through. Giving consequences clarifies the cause and effect relationship between how students act and what happens as a result.

# 3. Share a Compelling Why for Each Lesson

You help students lacking mental models when you provide a "compelling why" for each lesson. Invest time in teaching the "why" of a lesson as well as the "how to." How does this learning objective fit your students' lives now? Why is this knowledge important to know and use forever?

# 3.a- Help Students Set Goals

Help students low in mental models set direction for themselves. They need realistic goals — ones that they have a 70 to 80 percent chance of achieving. Goals also serve as benchmarks that can tell students where they are in a process. Teach students they cannot "do" a goal; they can only "do" activities that will help them move closer to their goal.

# Examples:

If my goal is to lose ten pounds, I cannot do nothing and lose ten pounds. I can, however, do activities that will help me lose weight. For example, I can:

- Buy a book on dieting, read it, and follow the steps listed.
- Walk one mile each night.
- Call two friends, ask them how they lost weight, and follow their advice.
- Join an aerobics class and attend regularly.

Creating a goal and listing possible activities to reach that goal helps students low in mental models create a picture in their minds of how to achieve that goal, keep track of how they are doing, and celebrate small successes along the way.

# 3.b- Develop Internal Standards

In one sense, evaluation is a power issue. The person with the red grading pencil has the power. That sets up the "BIG ME/little you" dichotomy.

When you involve students in evaluation and instruct them in self-evaluation, you help them develop an internal standard. They create their own mental models of excellence and quality.

Of course, we as educators are the final evaluators. If we do not evaluate students, we lose our jobs. Yet if we desire self-responsible students, it behooves us to involve them in some part of their evaluation and teach them the importance of self-evaluation.

# Examples:

- Give students one file card each, and ask them to rate a movie you just showed. Ask them to give it a 4-star, 3-star, 2-star, or 1-star rating and explain their evaluations.
- Have students compare and contrast two samples of their own handwriting (one from earlier in the year).
- Give students three criteria by which to judge their own project. Ask them to evaluate it based on the criteria provided.
- Have students create a row of cursive Ms. Ask them to circle their three best Ms, and then circle two they could make better if they were doing them over.
- Invite students to list the five most responsible choices they made this week. Have them rank their choices from most responsible to least. Have them explain their ranking.

# 4. Give Constructive Examples of How Students Can Improve

Students need specific, descriptive feedback. Refrain from making evaluative comments; instead, tell them what needs to be done, academically and behaviorally. If you want a behavior, you have to teach a behavior.

### Examples:

- If students are to take turns, model how that is done.
- If you want students to make a correction, you have to describe specifically how you want them to make the correction.

# 4.a- Help Students Get Organized

Suggestions of ways to help students get organized:

- Assignment notebooks.
- Planning books (which the instructor teaches students how to use).
- Checklists.
- Priority lists.
- Neatness and orderliness (which the teacher encourages).
- Established places for things.
- The "how to" of organization.
- Check points on long-term projects.
- Establishing routines.
- Keeping records of completed assignments. (Teachers make regular contact with students regarding missing work.

# 4.b- Provide Role Models — Mentor and Mentee

Bring positive role models to your classroom.

# Examples:

- Ask former high school students to describe what it is like to be in college.
- Have eighth graders read to third graders who are poor readers.
- Bring in a police officer, doctor, banker, writer, or other respected member of the community for an interview.
- Read about people with character in textbooks, magazines, newspapers, etc.
- Study the lives of people who are worth emulating as one grows up.

# 4.c- Use Self-Referred Comments

"I am going back to clean off my desk before I go home. It's great to start the day with one's desk clean and organized."

"I am going home after school today to correct your writing assignments. I love the feeling of accomplishment it gives me to set a goal and follow through with it."

"I am writing down what I want to do tonight, because that will help me get things done. And that feels good."

"I am going to listen to what you have to say to this. I feel it is important to hear others' thoughts and ideas before making a decision."

Self-Referred Comments such as these are a useful way to communicate responseability issues to your students. A Self-Referred Comment consists of two parts:

- Part 1: Self-Reference You speak about yourself. This portion explains *what* you will be doing.
- Part 2: Responsibility Connection You make a connection to responsibility. This portion explains *why* you are doing what you are doing.

# Examples:

"I am going to correct all of the tests I gave today before I go home." (self-reference) "I feel much more relaxed when I know my work is done" (responsibility connection).

"I am sending these papers to the print shop now." (self-reference) "If I allow enough lead time, I know the print shop will get them back to me on time" (responsibility connection).