

Developing Teenagers' Executive Function

"Students in my classes over the years have blurted out highly inappropriate comments only to have maturity catch up with the front of their brains seconds later," says author/ consultant and former middle-school teacher Rick Wormeli in this helpful article in *AMLE Magazine*. "They think jumping off a one-story building will work just fine if they have an opened umbrella to slow them down. They shoplift a Snickers bar even if they have the cash to pay for it." And they do things like crossing a busy street while talking on a cell phone. What these adolescents are struggling to develop is executive function, a key set of skills including planning and prioritizing, organization, time management, goal-directed persistence, sustained attention, task initiative, emotional control, response inhibition, flexibility, working memory, and metacognition.

Many teachers' response to undeveloped executive function in their students is to say something like, *Come on, step it up, get organized, use your time wisely, show respect, get your act together*. "These comments are a little like telling a student who doesn't speak our language that he is intellectually incapacitated," says Wormeli. Here are his suggestions for helping students gradually improve their executive function:

- *Break down big projects into smaller chunks*. Then help students develop the skill of doing this themselves.
- *Confirm, reconfirm, and reconfirm all directions*. Students may not have tuned in the first two times.
- *Cue from afar*. "Communicate indirectly (for example, note, text message)," say authors Richard Guare, Peg Dawson, and Colin Guare. "The idea is to create distance between you and your teen so that the cue can work without the two of you being in the same space at the same time."
- *Announce upcoming events and schedule changes in advance*. "No surprises, if possible," says Wormeli.
- *Practice transitions from one activity to another*. This may seem more suited to elementary school, but adolescents need it too, says Wormeli.
- *Remind students of due dates*. It's best to put these at the top of every assignment or on the opening page of an electronic file.
- *Remove clutter*. Students' immediate work area should be clear of stuff that may distract them.
- *Regularly do a book-bag dump*. Once a week, students should get everything out of the bag and sort it out. Students who keep reminders on an iPad should look through all of them once a week to make sure the organizational system is working well.
- *Frequently provide effective, constructive, descriptive feedback*. "Focus on decisions students make, not the quality of the work," Wormeli suggests. "It's specific feedback that motivates and matures, not the label on the performance."

- *Make every goal transparent.* Examples of the final product are very helpful, as is experience critiquing others' products. "In doing this, they build a robust internal editor that helps them compare their own work with given exemplars in real time," says Wormeli. "They monitor their own progress and adjust their effort without feeling threatened."

- *Provide compelling visual aids.* These are important for everything students have to learn.

- *Help students identify risks.* Adolescents are naturally drawn toward risk-taking, which is pleasurable because it increases dopamine production in the brain. Schools can use role-playing, ropes courses, opportunities to get into new sports, clubs, and programs, examining real-life scenarios, and connecting to their core values – the people they want to be and their families want them to become. Students should know how executive function skills help them achieve what they want in their lives.

- *Graphically display progress.* Frequent mapping of how students are doing with respect to goals is helpful.

- *Get students to exert themselves physically.* "Aerobic exercise can grease the wheels of executive brain function," says author Annie Murphy Paul.

- *Create a positive emotional atmosphere.* This is the opposite of being an adversarial "gotcha" taskmaster.

"Looking at Executive Function" by Rick Wormeli in *AMLE Magazine*, August 2013 (Vol. 1, #1, p. 41-43); Wormeli can be reached at rwormeli@cox.net.