Challenging Kids, Challenged Teachers

Teaching Students
with
Tourette's,
Bipolar Disorder,
Executive Dysfunction,
OCD, ADHD,
and More

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Executive Dysfunction

I love deadlines. I like the whooshing sound
they make as they fly by.
— Douglas Adams

Jill was really looking forward to the tryouts for the cheerleading squad. Every day, she rushed home and practiced for hours to perfect her routine. But on Thursday, Jill's world flipped upside down. "What happened to you?" her friend Tina asked her in first period class. "How come you didn't show up for the tryouts?" Jill looked stricken. "What are you talking about?" Jill demanded. "Tryouts are next Wednesday." "No, they're not," said Tina. "They were yesterday."

Preview

Although all teachers are aware of two of the foundations of learning—attention and memory—the third foundation, executive function, is less well recognized. Yet it is crucial to learning through its direct effects and through its influence on working memory. We begin by defining the executive functions:

> Executive functions are control processes. They involve inhibition and delay of responding. They can be divided into the realms of initiating, sustaining, inhibiting/stopping and shifting. Another important aspect of executive function is planning and organization, which requires "attention to the future." (From *Attention, Memory and Executive Function*, Chapter 15, Martha Bridge Denckla, M.D.)

Think "absent-minded professor," "terminally disorganized," (Packer 1995) or "clueless" (Dornbush and Pruitt 1995). In other words, if your student experiences Executive Dysfunction (EDF), he has a great deal of trouble "getting his act together" (Denckla 2007). Executive Dysfunction is the most underdiagnosed and underestimated impediment to students using their IQ points for success. It does not matter how "bright" or intellectually gifted a student may be—if he is disorganized or otherwise "clueless," his accomplishments will not be commensurate with his intellectual potential.

Hallmarks of Executive Dysfunction*

A student with EDF may have significant problems with any or all of the following:
- Setting or appreciating longer term goals
- Planning
- Pacing work so that assignments are completed on time
- Getting started
- Using feedback to adjust behavior

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* Even though there are as yet no uniformly agreed-upon criteria for diagnosis, we agree with educators that school personnel need to screen for the types of deficits described in this chapter so that an appropriate program of supports, accommodations, and interventions can be developed.

- Sequencing
- Self-monitoring
- Inhibiting behavior
- Sustaining effort and focus
- Executing and completing projects
- Making transitions and shifting cognitive sets flexibly (switching quickly and smoothly from one focus of attention to another)
- Organizing materials and workspace (including locker and book bag)
- Prioritizing
- Regulating emotional responses

If this list looks a lot like manifestations of ADHD (Chapter 8), that's because there is tremendous overlap between what is considered ADHD and EDF. We view these disorders as associated, but distinct. Symptoms of EDF are not exclusive to students with ADHD; there are many non-ADHD disorders that are also associated with EDF.

Considering the hallmarks of Executive Dysfunction, think about a long-term written project that you might assign. What does a long-term project involve?*

- Picking topic
- Planning assignment
- Estimating time
- Getting started
- Gathering materials
- Breaking assignment into parts
- Determining deadlines
- Evaluating performance
- Self-monitoring
- Producing a completed or finished product

Is it really any wonder that a student with EDF is unsuccessful? And is it any wonder that so many students with ADHD and EDF "crash and burn" in middle school, where there is a greater demand on the executive functions (Langberg et al. 2008). Langberg also provides a review of studies investigating interventions for EDF in middle school settings (Langberg, Epstein, and Graham 2008).

Setting Goals

Most of us have many goals. Some goals are short-term, such as "I want to watch my favorite show tonight." Other goals are longer-term, such

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as the young newlywed who hopes to buy a house, or the adolescent who dreams of being a physician. Students with EDF often seem to lack long-term goals. They also have difficulty remembering academic long-term goals, even though the teacher has clearly outlined goals and expectations. Because the student does not retain clear goals, they may seem to not care about their grades or academic deadlines. They live in the "here and now." In a sense, students with this type of EDF suffer from what might be called "future myopia" (Barkley 1997).

If you don't know where you are going, you'll end up someplace else.
— *Yogi Berra*

In other cases, students with EDF may have unrealistic goals. For example, when one of Sherry's sons was asked to write his first paper on any topic of his choice, he decided on the topic, "The Universe." When asked how long the paper was supposed to be, he said, "Three pages." This student was classified as intellectually gifted, but the discrepancy between his intellectual ability and his common sense was enormous.

Tips and Tricks for Setting and Maintaining Goals

- Frequently remind students of the long-term purpose or goal.
- Establish subgoals with their own deadlines.
- Explicitly and frequently relate subgoals to a larger goal.
- When introducing the next step, review older material and concepts and preview new material to relate it to the larger goal. Explicitly point out the connection between the current or intermediate step and the long-term goal.
- Use "thermometer" charts that indicate progress toward the goal at the top.
- Hold weekly (or more frequent) meetings with the student to review the goal or intermediate goal and progress towards it.
- For larger projects, check to ensure that intermediate deadlines are entered in the student's planner.
- Use direct instruction to teach students how to "chunk" larger projects into subgoals and

intermediate deadlines, but, in the meantime, provide that chunking for them.

When it comes to "chunking" and establishing intermediate deadlines, use small chunks with individual deadlines and require that the student check in frequently. If the first intermediate deadline is set for two weeks away, the student will likely delay starting and totally forget about the project until the night before the first deadline—or worse, the day after it is due.

Planning

Some students may have little difficulty in appreciating a goal or even setting their own goals, but lack the planning skills required to achieve their goals. Planning may include activities such as:

- Considering different ways to reach the goal and evaluating each approach.
- Developing a sequenced set of specific steps towards the goal.
- Identifying the materials needed to complete the project.
- Considering whether materials can be obtained in time and are not too costly.
- Revising the plan, if needed.
- Establishing intermediate deadlines so that the entire project is completed by the final deadline.

Tips and Tricks for Planning

Teach students the mantra of "Plan Your Work and Work Your Plan."*

When helping your student prepare for a project, provide him with index cards that have been pre-punched with holes. Ask the students to put each step on one index card, and then put all the index cards in order. Put the cards on a ring to keep them in order and to prevent them from being lost. Because students may not include all steps they need to complete the project, help them track steps and identify anything they might have skipped. Using index cards makes it easy to add steps in the sequence or to re-order the sequence.

After reviewing the steps with the student and ensuring that the sequence is complete, ask the student to complete a project planning sheet that lists each of the steps and the due date for each step. A project planning sheet will be most helpful if it includes sequenced steps and intermediate deadlines and a section for materials that need to be obtained. To calculate the intermediate due dates, have the student work backwards—enter the date the project is due first (the "turn in" day), then work backwards to figure out when each step will need to be done by to meet that deadline. Monitor the student's plan to make sure that the student is meeting the intermediate due dates. *Source: (Dornbush and Pruitt 1995)*

Time Issues and Pacing

Many students have time-related issues. Some have poor time sense, i.e., time seems to move too quickly sometimes and too slowly at other times. Other students may have a different type of time problem—they may not accurately estimate how long it takes to complete a task. As a consequence, they'll often wait to start a major project until the night before it is due. In some cases, it may be that their sense of time is intact but that the students cannot keep all of their various assignments or tasks in mind long enough or well enough to add up all of their assignments for the night to determine how much time they need to allow. Students who fail to pace themselves, allow sufficient time, or keep track of time so that work is completed by a deadline create much frustration for parents and teachers.

As part of school-based screening, include information about a student's time-related difficulties.

Tips and Tricks for Time Issues

- Teach students to externalize time, i.e., not to rely on their inner sense of time but on external devices. For example, have the student use a multi-alarm programmable wristwatch to set reminders. A cell phone can also be programmed for reminder alarms. Start with inexpensive devices as the student with EDF is likely to lose at least a few watches or devices before they develop the habit of using them reliably.
- Provide checklists and prioritized "To Do" lists.

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* Adapted from a quote from Norman Vincent Peale.

- Use direct instruction to teach students how to create their own checklists and prioritized "To Do" lists.
- Teach student to estimate how long a task will take and then have them check the accuracy of those estimates (see Chapter 23).
- Provide students with some information about how much time something may take so they can check their progress, e.g., "This worksheet will probably take you about fifteen minutes total."
- Teach students to allow more time than they think is needed for any project.
- Use a "countdown" timer or clock positioned on the student's desk to help the student keep track of time. (Note: Use a silent clock; a noisy clock may distract the student or others and may increase anxiety for anxious students to the point where they work more slowly.)
- Model allowing more time for tasks.
- Establish intermediate deadlines for big projects and monitor progress towards the intermediate deadlines.

Teach students the mantra of "Do it now, not later!" (Pruitt 1995) because "later" probably means never. "Do it now" applies to entering project dates in a planner, completing subtasks, and actually completing the assignment.

- Teach students the use of time management tools. Being able to set a repeating function on a computer, PDA, or cell phone is especially helpful for routine activities. For example, set "Spelling Quiz" to repeat on Fridays, and set "Study for spelling quiz" to repeat on Thursdays.
- Write the due date for each assignment clearly at the top of each assignment and teach students to write due dates on the top of their homework assignments.
- When going over homework assignments for the day or monitoring the student's agenda or planner, remember to include intermediate deadlines for big projects.
- Use direct instruction to teach students strategies that improve their efficiency. For example, teach the student test taking skills such as whether to tackle short answer or essay questions first. Not everyone is born knowing how to take tests, and some students will need extra instruction and rehearsal on test taking skills.

> **About "five-minute warnings"**
> Although five-minute warnings may seem sensible, these warnings may not work if the student loses track of time or has no concept of how long (or how short) five minutes really is. Clocks that show the passage of time are helpful.

I still remember the day it finally dawned on me that asking my son, "Justin, would you please take out the garbage in five minutes?" was simply not going to work, and that I might as well be saying to him, "Justin, would you please take out the garbage sometime before the end of your life?" He simply had no concept of five minutes or could not accurately keep track of time while he was engrossed in something. He needed a reminder system that did not involve me nagging him. That is when we convinced him to set timers for himself. He is now a young adult and if he remembers to set a timer or reminder for himself on his watch or cell phone, he is successful, but if he procrastinates setting a reminder, he will forget and the task will not get done. Learning to set reminders is a life skill.

Use reinforcers to help the student work in a timely fashion, but do not just offer an incentive or reward without also providing some device or strategies. At the beginning of any program, incorporate some rewards for just using the reminders and techniques.

Initiation

Students with EDF often have difficulty getting started on tasks. These cognitively based problems are often misinterpreted as oppositional behavior or lack of motivation. For some students, difficulty getting started may be due to anxiety issues. We have encountered students who explain their "last minute" approach to big projects by saying that they work best under pressure. We tell them that research shows that students who procrastinate typically earn poorer grades when they get to college and are in courses with lots of deadlines (Tuckman 2005).

For other students, what may appear as an oppositional refusal to start working may be more of a learned helplessness response following repeated incidences of the student starting work but not being able to complete it due to EDF.

When a student with EDF is confronted with a large task that he cannot comprehend and deal with quickly as a whole, his reaction may be one of initial anxiety, followed by fear or even terror, then depression. He tries to escape the "yucky" feelings, but in doing so, may use the strategy of escaping the project or work that generated the anxiety.

Over time, the student may just quit sooner and sooner until he no longer even starts projects. If we assume the problem is primarily motivational, we might try offering positive inducements for starting or negative consequences for not get started. But a motivational approach is unlikely to be successful if lack of motivation did not cause the problem and you do not remediate the real problem.

The student may not be able to verbalize exactly why he cannot seem to get started. But his behavior is a form of communication about the problem. It is up to school personnel to be detectives to figure out what is interfering with initiating.

To understand the interference, ask questions such as:

1. Does the student have a plan for his work?
2. Is the student able to start the task promptly once the start signal has been given? And if not, is it because he is unable to change tasks or because he does not know how to start?
3. Does the student have the organizational skills needed?
4. Does the student have a learning disability that interferes with performing the task?

Tips and Tricks for Initiation

- Break the task down into smaller units.
- Have the student develop routines for getting started. Use direct instruction to teach the "how to start" sequence of skills, which might include such simple steps as:
  1. Write your name at the top of the page.
  2. Note whether it is homework or classwork.
  3. Put the due date at the top of any homework.
  4. Read the directions and highlight important words.
  5. Check to make sure you understand the directions.
- Check for comprehension. If students do not understand the task, they either do not get started, or start impulsively and on the wrong track.
- Collaborate with students to see what supports they need to get started.
- Instruct students to do just one problem or the first step and then signal you or come to you to have you check their work. The short-term check is also a good opportunity to incorporate some verbal praise about initiating behavior, e.g., "I like how you started so promptly."
- For younger students, incorporate external positive reinforcers for getting started within a reasonable amount of time. At the beginning, providing concrete and tangible reinforcers for every time the student starts a task may help boost task-starting behavior. Later on, contingencies can be added in so that the reinforcer or token is only earned if the task is initiated within a certain amount of time.
- Incorporate strategies to reduce the student's anxiety. (See below and Chapter 6.)

For highly anxious students, reduce anxiety and prevent problems by privately telling the student ahead of time, "We are going to be starting a big project later today, but don't worry, I will go over all the steps with you and check in to make sure that you are understanding the steps as we go along."

To help one anxious student who was having difficulty getting started, the teacher placed a therapist-created visual reminder on the student's desk to use his "BRAIN," (Figure 9.1 on the next page) and a checklist to self-monitor his use of the strategy.

Using Feedback

Students with EDF may have difficulty using feedback. An inability to use feedback effectively in academic tasks is evident in written expression tasks, where the student may strongly resist all requests to accept editing. But the deficit is also apparent in social interactions, where students with EDF may not seem to know how to adjust their behavior when giv-

Figure 9.1. Use Your BRAIN

Use Your BRAIN!

B = Breathe out once slowly.

R = Read or listen to the instructions.

A = Ask a question if you don't understand the instructions.

I = "I can do this!!"

N = Now get started!

This "BRAIN" cognitive cue can help anxious students get started on tasks more quickly.

en peer feedback in verbal or nonverbal form. Telling a student with EDF, "You are playing too rough" or "This paragraph is confusing, please clarify" is as helpful as saying, "You are doing something wrong." Clues or feedback that would normally be sufficient are not sufficient for a student with EDF.

Tips and Tricks for Using Feedback

■ Provide specific feedback as to what to do. For example, instead of saying, "This is sloppy," say "When you write, leave more space at the end of each line." Similarly, telling the student, "You are going to run out of time" does not tell the student what he needs to do to finish on time. Does he need to work faster or leave out some details he was planning to include? Be specific.

■ Praise students lavishly when they learn from feedback, e.g., "I am really impressed with how well you responded to your peer editor's suggestion by adding more examples to this section."

■ Create a buddy system where the student can observe modeled behavior by a student or paraprofessional who is willing to explain his actions as he responds to others' feedback.

Sequencing

Some students have difficulty arranging things in order over time or in space. Students with EDF may seem to be impulsive, for example, leaping to a step without having done preliminary steps that are important to success. But consider that it may not be impulsivity that is causing their problem. Deficits in working memory make it difficult for a student to both hold information and manipulate it, and the more steps that there are, the more likely it is he will skip or miss a step. If by some miracle the student can hold more than one thing in memory, then the student has to organize it while floating all the steps in memory. For students with EDF, this can be overwhelmingly difficult.

Sequencing deficits may appear as difficulties in:
■ Planning steps in order.
■ Telling a story in chronological order.
■ Answering questions fluently.
■ Following multi-step directions in the correct order.
■ Putting things in order.
■ Multi-step math problems.
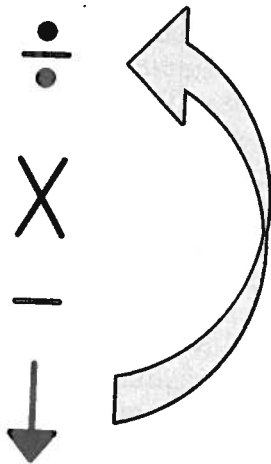
Tips and Tricks for Sequencing

To help the student follow sequences:
- Provide external cues.
- Place written and/or visual cues on the student's desk.
- Use cognitive cues that help the student retain the order of information or steps (discussed below).
- Teach students to create their own cognitive cues.

An external visual cue can be something as simple as a strip of paper taped to a student's desk to remind the student of everything that needs to be checked when editing written work. (A simple math editing strip is depicted in Chapter 20; editing strips for written expression are depicted in Chapter 19.) An external cue may also be as simple as a checklist of steps to follow that is placed on the student's desk, with the student instructed to check off each step as it is completed. Visual or symbolic cues represent the sequence of the steps. Figure 9.2 provides one such example for long division.

Mnemonics such as "HOMES" are verbal cues that facilitate retrieval of information (in this case, the names of the Great Lakes), but mnemonics do not necessarily provide any information about the order of the elements or content. When it is important to remember sequence or order, use verbal cues that have the order built in. The cue, "Every Good Boy Does Fine," represents the notes on the lines of the treble clef in order. When mnemonics preserve sequence, they are cognitive cues.

Returning to our example of the sequence of long division (Divide, Multiply, Subtract, and Bring down), the following cognitive cues both preserve the sequence of steps in long division:

> **"Dirty Marvin Smells Bad"**
> (Dornbush and Pruitt 1995)

> **"Does McDonald's Sell Burgers?"**
> (Source unknown)

Similarly, to remember the Great Lakes in a specific order:

> **"Sarah Must Have Eighteen Oreos"** preserves the order of the lakes from west to east as well as the names (**Superior, Michigan, Huron, Erie, Ontario**).

> **"Scared Harry Meets Evil Ogre"** preserves the order of the size of the lakes from largest to smallest area as well as the names of the Great Lakes.

A list of other content-related mnemonics can be found in Appendix I and on the accompanying CD-ROM.

Self-Monitoring

Self-monitoring relates to a student's ability to see him as others see him and to evaluate his own performance and production rate. Self-monitoring checklists or interventions can also be used on a class-wide basis.

Figure 9.2. Visual Cue for Long Division

A symbolic depiction of the sequence of steps in long division. The symbols represent divide, multiply, subtract, bring down, and then go back to the beginning of the sequence and do it all again (Dornbush and Pruitt 1995).

Tips and Tricks for Self-Monitoring

An Individualized Approach

An individualized form for self-monitoring is depicted in Figure 9.3 on the next page. The checklist is an adaptation of a checklist that a consultant created for a middle school student with EDF. The form was one element of a comprehensive intervention plan to address organizational and academic goals

Figure 9.3. Self-Monitoring Form

Self-Monitoring Form

Name: _____

Date: _____

Instructions: Fill this out at the end of the day and take it to _____. Rate yourself on how you did, where 1= "didn't do at all," 3= "average," and 5= "excellent and did it without reminders." If something didn't apply for the day, just leave the line blank.

ITEM	1	2	3	4	5
I requested this form from aide.					
I recorded all my homework assignments completely and accurately.					
Packed up all materials for homework at end of class period or day.					
I entered long-term project deadlines or test dates in planner.					
I worked on breaking down long-term projects or studying for tests into intermediate deadlines and entered these deadlines in my planner.					
I showed my teacher(s) intermediate work towards big project.					
I remembered to go to school nurse to take in-school medication today.					
I conformed to school code of conduct by acting appropriately.					
I cleaned out folders, book bag, desk, locker today (circle which ones you did).					

Self-monitoring form for a middle school student.

in his Individualized Education Program (IEP). This chart helped encourage the student to think about organizational skills on a daily basis, with the ultimate goal of having him take more responsibility for organizing himself.

The student used this form to earn points towards a reward he had selected.

At the end of each day, the student was to request this form from the classroom paraprofessional. If he did not request it, he would be cued to ask for it, but would not earn full points for the first item on the checklist if he required cueing. He would then complete the form, review it with the paraprofessional* or teacher and then turn it in. Completed forms were sent home at the end of each week so that his parents could see his progress and reinforce his efforts.

The student rated himself on each of the items in the chart in terms of how well he thought he had done on that task for the day. If something was not possible (for example, if he had no dates to enter in his planner), he could just put a line through the item.

In reviewing the form with the paraprofessional or teacher, his first goal was to match his perception of his performance to the staff's perception. If they agreed on how he did, he earned points (e.g., one point for each item if his evaluation of his performance matched theirs). Positive reinforcers were initially based on the student earning an agreed upon number of "match points." It was important that the first goal not relate to performance on the items because it might have led to him scoring himself unduly high to earn points. By reinforcing accuracy in self-reporting first, the student was able to earn rewards even though he might not yet be completing specific items on the chart independently. Once he was reliably assessing his performance, he then began earning points if he scored well on the items on the chart using a graduated approach over weeks. By recording the data daily, the data provided an additional means of determining whether the student was achieving his IEP objectives for organization and self-management.

This type of self-evaluation form helps a student reliably evaluate his own performance by adult standards, provides a daily reminder of things that are important for him to do, shapes organizational skills, and provides one last opportunity for the day to get assignments recorded and necessary materials packed.

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* As used here, the term "paraprofessional" is interchangeable with "paraeducator" or "classroom aide."

Tips and Tricks for Checking Work

Many of the disorders described in this book are associated with varying levels of impulsivity. Your students can help remedy this by checking their work as another form of self-monitoring. Tips and tricks include:

- Reinforce accuracy over speed.
- Allocate separate time during classwork and tests for students to check their work.
- Provide editing strips (see Chapters 19 and 20) or checklists that remind students of each important step in checking their work.
- Have students cross out incorrect answers instead of circling correct answers on tests.
- When grading student work, place check marks next to correct answers instead of X's next to incorrect answers.

Simply permitting more time for quizzes or tests is generally not sufficient to help impulsive students focus on accuracy and check their work.

Inhibiting Responding

Impairment in inhibiting behavioral responses is one of the core symptoms of both EDF and ADHD. Deficits in inhibition are also associated with other conditions discussed in this book, e.g., tics, manic episodes. As part of planning for the student with inhibition problems, teachers need to determine whether the student knows the rules and is just unable to follow them, or needs instruction in the rules—or both.

Repeating rules over and over again to a student who already knows the rules is a waste of time and unlikely to be successful. As Barkley has said, "the problem... is not one of knowing what to do but one of doing what you know when it would be most adaptive to do so" (Barkley 1997).

Tips and Tricks for Inhibiting Behavior

When school personnel think about trying to get a student to inhibit some behavior, it may not be because inhibiting that specific behavior is the final goal, but is viewed as setting the stage for the student to start achieving the "real goal." Goals such as "student will sit in his seat" are not as helpful as directly specifying

and addressing what we want the student to be accomplishing. If "sitting in his seat" is viewed as a means to some larger goal such as improving academic output, then we suggest rewriting the goal to something like, "Will complete more classwork within allotted time." That type of goal construction is more likely to lead to more direct approaches to boost productivity.

Engage the Student in Developing the Behavior Plan

Whenever possible, engage the student in the process of developing a plan to help him manage his disinhibited behavior. Even if the school team is not conducting a Functional Behavioral Assessment (Chapter 26), any plan is more likely to be successful if we get the student's input and commitment to the plan. A "Cooperative Problem Solving" approach that can be used to engage the student is described in Chapter 31.

Provide any interventions and supports at the point of performance. Preparing students for what might happen later in the day or the next day is not as effective as working with them when they are in the situation or when they are motivated to accept assistance and suggestions. The majority of the work needs to be done in the classroom or in the settings and situations where the problems with inhibiting behavior occur.

It is also important to note that reward-based systems or "Cooperative Problem Solving" may not work if the class is so unstructured and has too few environmental supports. Designing a classroom that incorporates visual cues and routines is an essential ingredient that precedes other interventions oriented to inhibiting behavior. (See Appendix C: Classroom Layout Checklist and the accompanying CD-ROM.)
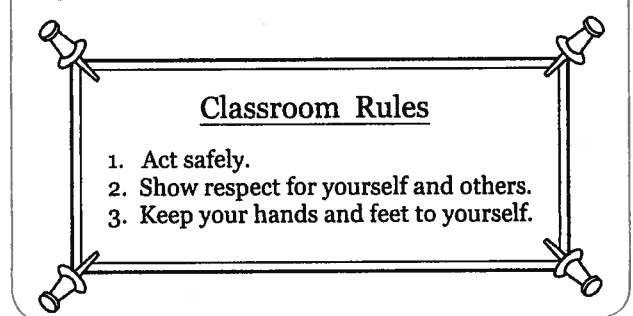
Add Adult Supervision

Because students with behavioral disinhibition are at greater risk of accidents, planning for the student needs to include added adult supervision. Activities or settings that are most problematic include the playground, cafeteria, bus, gym, and field trips.

Structure the Classroom to Promote Inhibition

State regular classroom rules positively. Figure 9.4 illustrates positive elementary school classroom rules that we have seen.

Simply posting classroom rules in general terms is not sufficient for many students with EDF, however. The first day of classes and during the first week

Figure 9.4. Sample Classroom Rules

Classroom Rules

1. Act safely.
2. Show respect for yourself and others.
3. Keep your hands and feet to yourself.

of school, allocate time for direct instruction of the classroom rules, using the "Say, Show, Check" method for young students. To do this, tell the students the rule or expectation, demonstrate it in action while they comment on it, and have them rehearse or demonstrate the behavior while the teacher observes and provides feedback and reinforcement. A booster session may be needed following an extended vacation or if the class behavior seems to deteriorate.

If there is a group- or individual-based reward system in conjunction with the classroom rules, teach the reward system in conjunction with teaching the rules. Some students may need specifically individualized rules and some may require more structure and support to comply with the rules.

EDF is best remediated through direct instruction. For example, if a student has been asked to be respectful to the teacher, does the student really know what that means? A student with EDF might be turned around looking at the bulletin board while listening to the teacher's lecture. At some point the teacher notes the behavior, feels ignored and disrespected, and says to the student, "You are not listening, Daniel." The student argues with the teacher and says, "Yes, I am!" The argument persists until the student gets sent out of the room. The student will not understand what happened because the teacher said, "You are not listening." Daniel *was* listening, and with his EDF he only hears that. He does not know that he appeared to be disrespectful because he was not watching the teacher. She did not say what she really meant and he did not pick up on the implication. The teacher can never assume that students with EDF will pick up on any implied information not directly stated.

If, however, the teacher remembers that the student has EDF and may just not know how to act like a respectful listener, then the interaction goes very differently. The teacher moves next to Daniel and says the following in a nonjudgmental tone:

Teacher: "Daniel, are you listening to me?"
Student: "Yes, I am."
Teacher: "I appreciate that but I think it is important to learn how people feel when you are turned around and facing away from the speaker. In social language that says, 'I am not listening and do not care about what you are saying' and is a sign of disrespect. I am afraid that others will not know how much you are truly interested in what they are saying and will get mad at you for acting like that. Let's practice facing toward the speaker so the person speaking will feel important and respected."

Establish Classroom Routines

The importance of consistent classroom routines cannot be stressed enough in any discussion of behavior management, and it is the very students who need routines the most—those with EDF—who often have the most difficulty learning the routines. Developing a habit involves frequent rehearsal, and students with ADHD and/or EDF tend to lose interest if the activity is no longer novel or stimulating. To promote learning of classroom routines, incorporate:

- Active movement on the students' part
- Some novelty
- Color
- Humor (when possible)
- External reinforcement contingent on successful compliance with the routine

One way to promote mastery of a routine is to incorporate more stimulation. For example, when teaching young students the routine of turning in their homework, elementary school teachers can create color-coded bins—one for each subject area's homework papers and use "bells and whistles" to indicate when it is time to turn in assignments.

Many teachers walk around to collect homework, in part because it may reduce the likelihood of students becoming unruly after they get out of their seats to turn in their homework. While we understand this rationale, such strategies do not teach students the more active response of turning in work, which they will need for the future. As adults, their employers will not come to them to get their work; they will have to remember to go hand it to the boss.

Instead of collecting homework, then, consider a routine where a novel audio signal cues students that it is time to place their homework in the appropriate homework bin. Because some students may not

return to their seats promptly, use direct instruction to teach getting up quickly and quietly, turning in the work, and then quickly and quietly returning to seats. Provide positive reinforcement for compliance.

Sustaining Focus and Effort

The inability to sustain focus can be due to a variety of causes, including EDF. To address difficulties in sustained attention, consider the physical layout of the room, classroom structure and routines, materials and presentation factors, and individualized strategies.

Tips and Tricks for Sustaining Focus and Effort

In addition to the tips in the chapter on ADHD (Chapter 8):

- Decrease delays during presentations. The longer students have to wait, the more difficult it will be for them to sustain their attention.
- Review old material and skills and then preview new material to show where it will "fit in" with the previous material and overall goals. Many students have difficulty sustaining focus and inhibiting responding to distractions because they do not really understand how what they are doing relates to previous material and skills.
- Check for comprehension. Allow a few extra minutes at the beginning of each activity to check on students who have attention or comprehension problems.
- Use concrete and real life examples that are meaningful to the student.
- Externalize and boost motivation to attend by using procedures such as "Countdown to Free Time" (see Chapter 28).
- Establish a classroom routine to get students' attention, such as "Give Me Five!" (Chapter 28).
- Pause and create suspense by looking around before asking questions.

Executing and Completing Projects

Students with EDF are less likely to complete work, and the longer the task takes to complete, the more steps, the more organization and time man-

agement required, and the less interesting the subject is, the less likely the student is to complete it. For tips on written expression and big projects, refer to Chapter 19.

Apart from difficulties in completing classwork, students with EDF also experience tremendous difficulty in completing homework. Homework issues related to EDF and other factors are considered in Chapter 23.

Identify the role of executive function in the student's difficulties in completing projects and homework. When the impaired executive skills have been identified, review methods in this chapter and book to address the specific deficits.

Making Transitions

Difficulties in making transitions are a major source of school problems for students with EDF. In some cases, difficulty shifting may be due to compulsive behavior or obsessional thinking. In other cases, perseveration or cognitive rigidity may interfere with making quick and easy transitions. In other cases, the difficulty in making a transition or shift may represent the student's difficulty in mentally putting on the brakes for what he is doing so that he can mentally reorganize to start the requested activity. What may appear to be uncooperative or oppositional behavior in response to a transition instruction is often a result of cognitive difficulties.

Saying "Hurry up!" to a student who is dysregulated or who has EDF and is having difficulty only increases arousal levels, results in greater dysregulation, and slows down transitioning even more.

Tips and Tricks for Transitions

The following techniques promote faster and smoother transitions:

Early Warnings

One of the simplest and most effective techniques to combat trouble during transitions is to give advance warnings. For example, let your students know that in fifteen minutes they are going to lunch. Then give them a ten minute warning. Five minutes later give one last warning. This allows the students with transition issues enough time to shift from work to lunch. As noted in an earlier example,
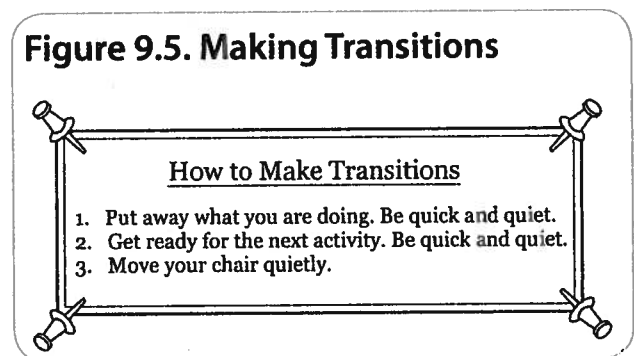
however, five-minute warnings do not work for some students and they will need to see external reminders of time.

Direct Instruction

The time spent making a transition is one that is significant to teachers, as the average elementary classroom makes between eight and ten transitions of about eight minutes each per day. That adds up to one entire day per week of instructional time spent on—or lost to—transitions.

The trick is to use direct instruction. Starting in the earliest school grades, most students can be taught how to make a transition using a simple lesson like the one below, which is adapted from Rathvon (1999). Teachers will need a sign, a stopwatch, and a recording sheet (the latter two are needed only for the optional timing and recording for the Beat the Clock enhancement). The sign can be a simple one, like that shown in Figure 9.5.

Figure 9.5. Making Transitions

How to Make Transitions

1. Put away what you are doing. Be quick and quiet.
2. Get ready for the next activity. Be quick and quiet.
3. Move your chair quietly.

A simple sign with the directions for how to make a quick and quiet transition.

During the instructional activity, tell the students that they are going to learn how to make a transition:

- Define "transition time" (or a more age-appropriate word) as the time it takes to change what we are doing. Ask them to repeat the definition. If they repeat it accurately, say "Right, [transition time] is the time it takes to change what we are doing." If they do not get it right, just repeat the definition and have them repeat it again.
- Tell them the two important things about making good transitions: being quick and being quiet. Ask them to repeat aloud what is important about making good transitions.
- Go over the rules on the sign. Read them to the class and discuss each one briefly. Have the students repeat the three rules.

- Now demonstrate how to make good transitions. Start with a seated activity and talk out loud as you model a transition. For example, "It is transition time. I need to get ready for math. I put away my spelling book quickly and quietly. Now I take out my math book quickly and quietly."
- Tell the class that they are going to see more transitions and ask them to comment on what you are doing as you are doing it. Model quick and quiet transitions from one activity to another at your desk. Then model some transitions that involve you getting up from your desk and going to another part of the classroom. For example, "It's transition time. I need to go to music. I am putting away my spelling book quickly and quietly. Now I am moving my chair quickly and quietly, and lining up at the door quickly and quietly."
- Model a few more transitions, having the students comment on what you are doing and how you are doing it.
- Now have the class practice transitions. Cue them by saying "It is transition time. Get ready for math. You will need ____." Provide feedback and praise.

The whole lesson will probably take less than twenty minutes. It may need to be repeated occasionally, particularly after vacations.

If you want to speed up transitions after the class has the habit of making (relatively) quick and quiet transitions, you can introduce a "Beat the Clock" component whereby the group can earn rewards for completing transitions before the buzzer sounds. If you have anxious students, this may not be a good idea—speeding up transitions via "Beat the Clock" may backfire for anxious students.

Provide Support for Transitions

Although you can teach transition skills as a group activity and cue the group as a whole, some students require individual cueing. Stand close to the student and softly cue the transition. Consistent with the guiding principle of externalizing motivation, contingencies can also be established for individual rapid and quiet transitions.

Having a consistent classroom routine and a visual display of the routine can also facilitate transitions. Have the weekly and daily routines prominently posted and get in the habit of checking off each item

as it is completed. If the daily routine changes, be sure to point this out to the students. For some students, having their own individual daily schedule on their desk that they can check off is necessary and helpful.

Organizing Materials, Belongings, and Workspace

Disorganization is often the most prominent symptom of EDF. These are the students who never record all their assignments, who lose their materials, planners, and belongings, and on those rare occasions when they manage to complete an assignment, they cannot find it. Their backpacks are like a black hole—things go in but never come out. Notes you send home are never returned, and when you call the parent, you find out that they never got the note.

Because so many students have organizational deficits that impair school functioning and homework, we have developed a simple screening tool that we encourage teachers to send home during the second month of school for parent completion and return. Reproducible copies of the Organizational Skills Survey are provided in Appendix H and on the accompanying CD-ROM.

If you send the Organizational Skills Survey (Appendix H) home and it is not returned to you, then that is a pretty good indication that there may be a problem—either with the student or with the parent—or both. You will need to follow up.

Tips and Tricks for Organization

Physical Layout and Structure
- Use a color-coding system. Use one color for each subject, e.g., blue for science, green for math, etc.
- Set up color-coded bins in the classroom to coordinate with the system. Encourage students to get into the routine of dropping their work into the color-coded bins.
- Set up a mailbox for each student.

Classroom Structure and Routines
General:
- Have the daily routine prominently posted where all students can see it. Check off each item as it is completed.

- Teach students to immediately mark each paper as either classwork or homework.
- Teach students to routinely color highlight important instructions on handouts.
- Set up a weekly routine for cleaning out desks.
- Set up a weekly routine for cleaning out folders and book bags.
- Assist older students with cleaning out their lockers on a weekly basis.
- Have all students bring in an extra supply of pens, pencils, tissues, or whatever they tend to lose or use up most frequently.
- Schedule a date on which students check their "stash" of supplies and write notes to replenish. Follow up to see that they have.
- Use a separate communication system for communicating with parents, like a separate folder or notebook—not the student's planner. (See Chapter 33.)
- Provide students with their own to-do lists taped to their desks. Eventually, students need to be taught how to create their own to-do lists, but when first starting, provide them with the to-do list and ensure that it is taped to the desk and clearly visible. (Do not use a small index card that may get covered up—use a big sheet of paper!) Have them check off items as they are done.
- Provide study guides, outlines, and copies of any overheads.
- Break down large projects into smaller units, etc.

Schedule a swap meet! Students come in with a stash of extra supplies and you send home an extra set of books.

Homework-related:
- Create homework buddy teams that check each other to ensure assignments are recorded and necessary materials packed up (for younger students).
- Follow a consistent daily routine for recording homework assignments and packing books and materials. Allow extra time to record assignments, and verbally cue when it is time to record assignments.
- Cue students to record homework due date at top of assignment if the date has not been indicated already. Ensure that they note it.
- Follow a consistent daily routine for turning in homework and notes from parents.

- Set up a system for students to get the daily homework assignment if they forget to take their planner home, e.g., assign homework buddies, send assignments home by email, or post assignments to a classroom website.
- Schedule brief weekly meetings with each student to give them a list of whatever assignments or signed notices are missing. Place that list in the communications notebook or folder for the parents' attention.
- If possible, provide an extra set of books to be left at home.
- Set up a system to submit homework from home, as described below.
- (Other homework-related tips are provided in Chapter 23.)

All too often, the very environmental supports and cues that helped the student in elementary school are abandoned in middle or high school because the students are presumed to have mastered the skills by then. For students with EDF, however, the absence of visual and verbal prompts results in deteriorating functioning or "crashing and burning."

Simply accept that even though the student should know to record their assignments, and even though you have clearly written the assignment on the board, some students still require a verbal prompt, "OK, everybody record the assignment now." Say this towards the end of class rather than first thing, as disorganized students are the ones who arrive late and miss the cue, or who will be busy unpacking and miss the prompt. Learning to allow a few extra minutes each day to allow students to record and pack up can reduce stress on everyone.

Teach the students the mantra of "Record it or Regret it!"

Students with EDF simply cannot count on their memory, despite their best intentions. The "record it or regret it" mantra is used in conjunction with the "do it now, not later" mantra. Remember that if you give an assignment verbally because you are out of time or have a revision and do not write it on the board, call attention to it, and allow sufficient time for disorganized students with handwriting issues to record it.

Students with EDF often are overwhelmed by book bag and locker chaos. You may need to sit down with the student and make a list of exactly which books they need to grab at which times of day and which books are to be put into the locker at
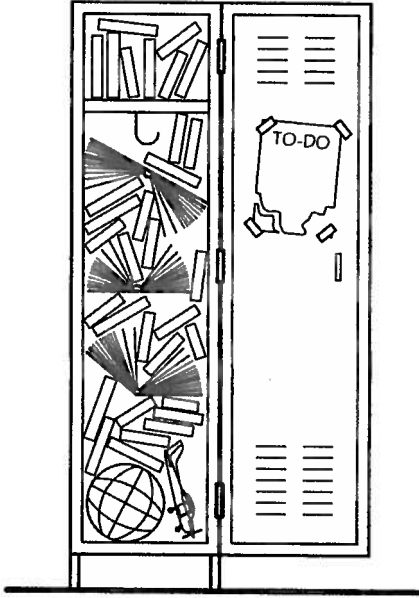
which times. Color-coding helps, as it enables them to "grab all blue and all green for morning classes" or "grab red and yellow for afternoon." Post the list on the inside of their locker.

Make sure that the pages of the student planner are large enough to accommodate sloppy handwriting! See Chapter 17, Handwriting Issues, for the relationship between handwriting issues and organizational deficits.

"The Dog Ate My Homework"

For students who seem to lose their homework between home and the classroom, work cooperatively with them on a plan of action. Can they fax a backup copy of their homework to the school at night? Can they email an assignment to the teacher or themselves at school as a backup? Think creatively, but engage the student in solving his problem and have him take some responsibility for getting the assignment turned in. Taking some responsibility, however, does not translate into penalizing the student for failure to turn in work. If you penalize a student who has done his homework but lost it or forgot to bring it in, you penalize him for doing homework as well as for not turning it in. In this situation, it makes more sense to reward the success than to penalize the failure.

Remember that you can boost performance by adding external rewards (e.g., a lottery the student's name is entered in for each homework assignment submitted). But the rewards only work if

the student has the skills and supports to engage in the desired behavior.

Prioritizing

Prioritizing involves:
- Ranking ideas in the order of importance.
- Putting things in order of the dates they are due.
- Assessing the value of the activity.

What happens when a student cannot prioritize? He may waste time working on small projects and run out of time for more important projects. An older student may have difficulty deciding what to record when taking notes because everything may seem equally important or unimportant. The student may have difficulty determining how much detail—and which details—he needs to include in written expression and whether he is providing the most important information when telling a story orally. He may make "poor choices" due to lack of prioritizing skills (e.g., going out to a movie instead of staying home to study for the final exam).

At home and in school, the student with prioritizing deficits may fight every fight as if it is the most important battle. Parents and teachers need to prioritize when it comes to picking and choosing battles with a dysregulated student who has EDF.

Sometimes, the failure to prioritize is simply age-appropriate behavior. For example, a teenager may easily view going out with his friends that night as much more important than an upcoming test in school for which he is supposed to study. Similarly, a young child may demand that he be given more time to finish a drawing he is making even though the entire class is lined up at the door, waiting to go to music class. But if a student repeatedly exhibits such problematic behavior, be curious as to whether it might indicate EDF.

Tips and Tricks for Prioritizing

- Tell the student the priorities in order if assessment indicates that he cannot prioritize properly.
- Tell students what information or material need to be memorized because they may not figure it out on their own.

- Provide study guides, outlines, partial or full notes, and copies of any overheads.
- Employ some verbal cues and strategies. When trying to decide which homework assignment to make a priority, ask the student: "Which assignment is worth more points towards your final grade?" "Which assignment is due first?" The answers to these questions may help the student determine which task to make more of a priority or to tackle first. Unfortunately, these questions are less likely to work if asked by parents unless the teacher has sent something home to parents with the answers to those questions, because the student with EDF will probably answer, "I don't know" to both of those questions!
- Cue the students with phrases such as, "Now this is important...." or "One of the things that will absolutely be on the test is...."
- Teach students with EDF how to create their own to-do lists, then how to prioritize the items on their to-do lists. In the interim, provide them with a prioritized daily to-do list.

Prioritizing When Taking Notes

As suggested above, prioritizing deficits impair students when it comes to note-taking, as everything may seem equally important to them. Teachers can assist students by providing direct instruction on note-taking skills that incorporates clues as to how to prioritize material, and then providing verbal cues during presentations (such as the "Now, this is really important" preface). No one system of note-taking is successful for every situation. Different students have different styles, just as teachers do. Consider the following two approaches to note-taking for students with EDF.

Mindmapping

A mindmap is a visual method of organization that shows the 'shape' of the subject, the relative importance of information and ideas, and the way that information relates to other information. Because less writing is involved, more information can be represented on one piece of paper, which may foster comprehension of the big picture. (See Chapter 19 for an illustration of a mindmap.) Because handwriting is an issue for many students with the types of conditions covered in this book, they may find this system more attractive to use than a more traditional method of note-taking or outlining.

Even when using a mindmap, provide students with skeleton notes in outline form.

Consider creating a mindmap first in terms of its major points to help guide the student's note-taking and research. Alternatively, the student can simply read the books, take notes, and then "sort" them into piles, after which the mindmap can be constructed.

Two Column Note-taking System

Another approach to note-taking that has some attractive features is the system illustrated in Figure 9.6. This is based on a system developed by Garneau Collegiate. As with the mindmapping system, students can use this system to take lecture notes in class or to outline or study at home.
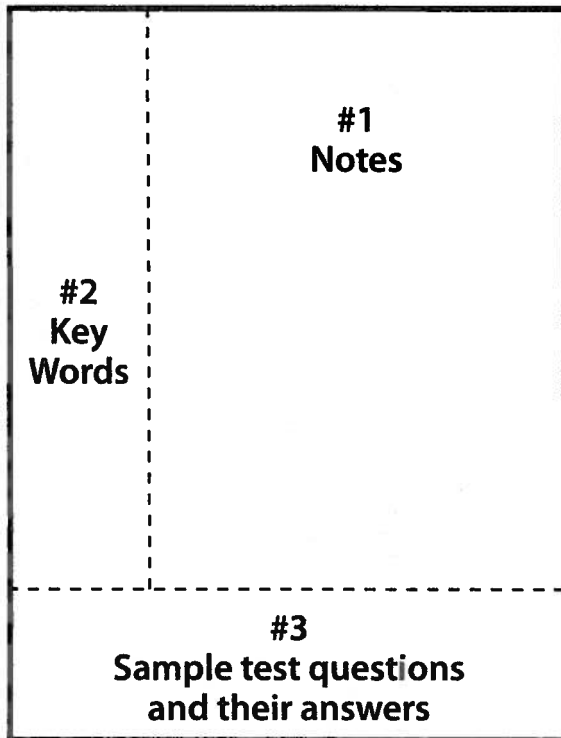
Regulating Emotional Responses

Students with EDF have difficulty regulating their affect (mood), emotional responses, and arousal level, which partly explains why they may spend so little time in the "DRIVING WELL ZONE" (discussed in the Overview to Part II). To complicate social-emotional aspects, students with EDF may experience problems with emotional control if they have not internalized speech to the same degree as their non-EDF peers. Without self-talk, emotionally driven responses are disinhibited. Because they do not have that protective delay that allows them to reflect and to match their response to the situation, they overreact and tend to react more aggressively than the situation calls for.

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*Anyone can become angry, that is easy . . .
but to be angry with the right person, to the right
degree, at the right time, for the right purpose,
and in the right way. . . This is not easy.*
— Aristotle

As we described in the Introduction to Part II, students can be taught vocabulary and imagery to help them identify whether they are "at the right speed" for task conditions and task demands. When a teacher sees a student struggling, the teacher might say something like, "I think you are going too

Figure 9.6. Two Column Note-Taking System

```
+----------------------------+
|              |             |
|              |    #1       |
|              |   Notes     |
|              |             |
|   #2         |             |
|   Key        |             |
|  Words       |             |
|              |             |
|              |             |
+- - - - - - - - - - - - - - +
|                            |
|          #3                |
| Sample test questions      |
|    and their answers       |
+----------------------------+
```

Directions:

■ Have the students create a crease two inches from the left margin of their note paper. Have them create a second crease two inches from the bottom of the page, and then unfold the paper.

■ Direct them to use the area marked #1 ("Notes") to take notes from the book or in class.

■ Have them use the area marked #2 ("key words") to note key words, or new vocabulary words from class or from the book. In the area marked "Notes" directly opposite the word, they should write the definition of the new word or enter notes about the new concept or key word.

■ Instruct the students that while everything is still fresh in their minds, use area #3 to predict and write down several sample questions they think will be on the next test.

Developed by Garneau Collegiate, and reproduced with the permission of the Toronto District School Board.*

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* Retrieved from http://marcgarneauci.com/Students_Services/reading_notetaking.html.

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fast. Are you getting too close to the red zone? Remember to take a break and use one of our strategies (e.g., relaxation breathing or going to get a drink of water) to lower your speed so that you stay in the green zone and do not get a speeding ticket or worse—crash!"

The optimum use of this "Watch Your Speed!" program is seen when a student comes up to a teacher and says that he is "racing" and he needs to make a "pit stop" at the counselor's office to get help slowing down, or that he is not fast enough and needs to use his strategies to boost his speed.

In addition to considering EDF as a source of a student's emotional dysregulation, teachers and other school personnel need to inquire about two other sources of emotional dysregulation: sleep problems (Chapter 14) and medications (Chapter 24). Both of those factors may be causing or contributing to emotional dysregulation.

Tips and Tricks for Emotional Regulation

For students with problems in arousal and emotional regulation, here are some techniques or suggestions to consider:

■ Provide added adult supervision where needed, e.g., during unstructured time such as lunch and recess, on field trips, or in any other situation in which the student tends to get overaroused.

■ Schedule the most challenging academic activities for mid-morning, if possible, when most students are at their optimal arousal level for learning and performance.

■ Have prominently posted classroom rules for behavior that include rewards for good behavior and fines for punishable offenses.

■ Have group-based and individually-based reinforcement contingencies for prosocial behaviors.

■ Use role-play to prepare students for any anticipated difficult situations and cues or prompts at the point of performance.

■ Prepare students for any activities or transitions that are likely to be problematic or stressful.

■ Teach problem solving skills using the P.L.A.N. technique and conduct an "Instant Replay" afterwards to review the students' performance and outcome (see Chapter 31 for a description of these techniques).

- Use "graceful exits" to help students leave the room so that they can go calm themselves if you see warning signs that they are over-aroused or about to explode (see Chapter 31).
- Schedule breaks and opportunities for active movement.
- If students do lose control and have an emotional "storm" or "rage attack," give them an opportunity to calm themselves before asking them to engage in any academic work (see Chapter 15).

EDF and Social Skills

Not surprisingly, students with EDF often experience significant social impairment. Some impairment may be due to verbal executive deficits that affect language and communication skills (see Chapter 18), but the same deficits that affect academic functioning may also affect social functioning, e.g., the failure to plan ahead, the inability to shift flexibly, and the inability to organize social plans. EDF also affects social functioning through its impact on the ability of the student to take the perspective of others. The impact of EDF on social skills is described in more detail in Chapter 34.

Associated or Comorbid Conditions

EDF usually occurs along with another condition or disorder. Screen for:
- ADHD
- Autism Spectrum Disorder
- Brain Injury (e.g., acquired brain injury, traumatic brain injury)
- OCD
- Anxiety disorders
- Mood disorders (e.g., Depression or Bipolar Disorder)
- "Storms"
- Memory deficits, e.g., working memory deficit
- Nonverbal Learning Disability
- Learning Disabilities: written expression, math calculation
- Verbal Executive Dysfunction (e.g., practical social language skills, pragmatics)
- Handwriting deficits
- Language problems
- Sensory dysregulation

Assessing Executive Functions

As described in Chapter 1, every psychiatric or neurological disorder is associated with frontal lobe impairment, and because the frontal lobes are involved in executive functions, whenever a student has any diagnosed neurological or psychiatric disorder, we need to screen for EDF.

In our experience, most school-based psycho-educational assessments do not incorporate sufficient screening for EDF or assessment of executive functions. Neuropsychologists and qualified licensed school psychologists may use a number of tests that tap into specific executive functions, along with one of several batteries of tests to assess EDF. These batteries include:
- Developmental Neuropsychological Assessment (NEPSY)
- Delis-Kaplan Executive Function System (D-KEFS)
- Behavior Rating Inventory of Executive Function (BRIEF)
- Behavioral Assessment of Dysexecutive Syndrome (BADS-C)

Each has its limitations, but in our experience, if schools use the BRIEF battery, teachers and parents will have a better understanding of any executive skills deficits that may be impairing functioning. When school personnel use the BRIEF battery, students are less likely to be described as "lazy and unmotivated" and more likely to receive the EDF supports and strategies they need.

The fastest and easiest way to assess student challenges is pretty straightforward:
1. Look in their desks, bookbags, and lockers at school or their closets or desks at home.
2. Ask parents to complete the Organizational Skills Survey (Appendix H).

If you find a chaotic mess of books, papers, and other materials, refer the student for a BRIEF assessment or some other neuropsychological assessment. Figure 9.7 depicts our shortcut assessment for organizational deficits.

Summary

EDF is one of the most serious sources of academic impairment for students. For each grade level

Figure 9.7. The Dreaded Bookbag

An easy way to screen for organizational problems. To administer the test, simply look in the student's bookbag. An alternate version for older students involves looking in their locker. Photo credit: Colleen Wang.

and curriculum, success depends on the executive functions the student must possess to master the curriculum. These skills are sometimes referred to as the "hidden curriculum" because they are necessary but not directly taught. EDF also significantly affects behavior and social-emotional functioning. Executive Dysfunction can rob one of friends, the ability to get a job or even an interview, and the ability to create a successful family.

Chantal was never prepared for class. Her teacher understood her challenges and tactfully provided her with a pen, paper, or whatever she needed, but she was concerned that Chantal was not learning how to be prepared. Chantal had an idea, and asked her teacher if she could bring a box of supplies to leave in her homeroom so that she could start the day prepared and come back to homeroom on her lunch break to get more supplies if she needed them. The teacher agreed and complimented her on taking some steps to help herself. Chantal was excited and proud that she now had supplies when she needed them. Two months later, she beamed when she was given the "Most Improved" certificate from one of her teachers.

"Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not; it is the first lesson that ought to be learned; and however early a man's training begins, it's probably the last lesson that he learns thoroughly."
— *Thomas H. Huxley*