

NESCA Neuropsychology & Education Services
for Children & Adolescents

90 Bridge Street
Newton, MA 02458
(617) 658-9800

Executive Function and the Middle School Student

Ann A. Helmus, Ph.D.
Pediatric Neuropsychologist
Director, NESCA

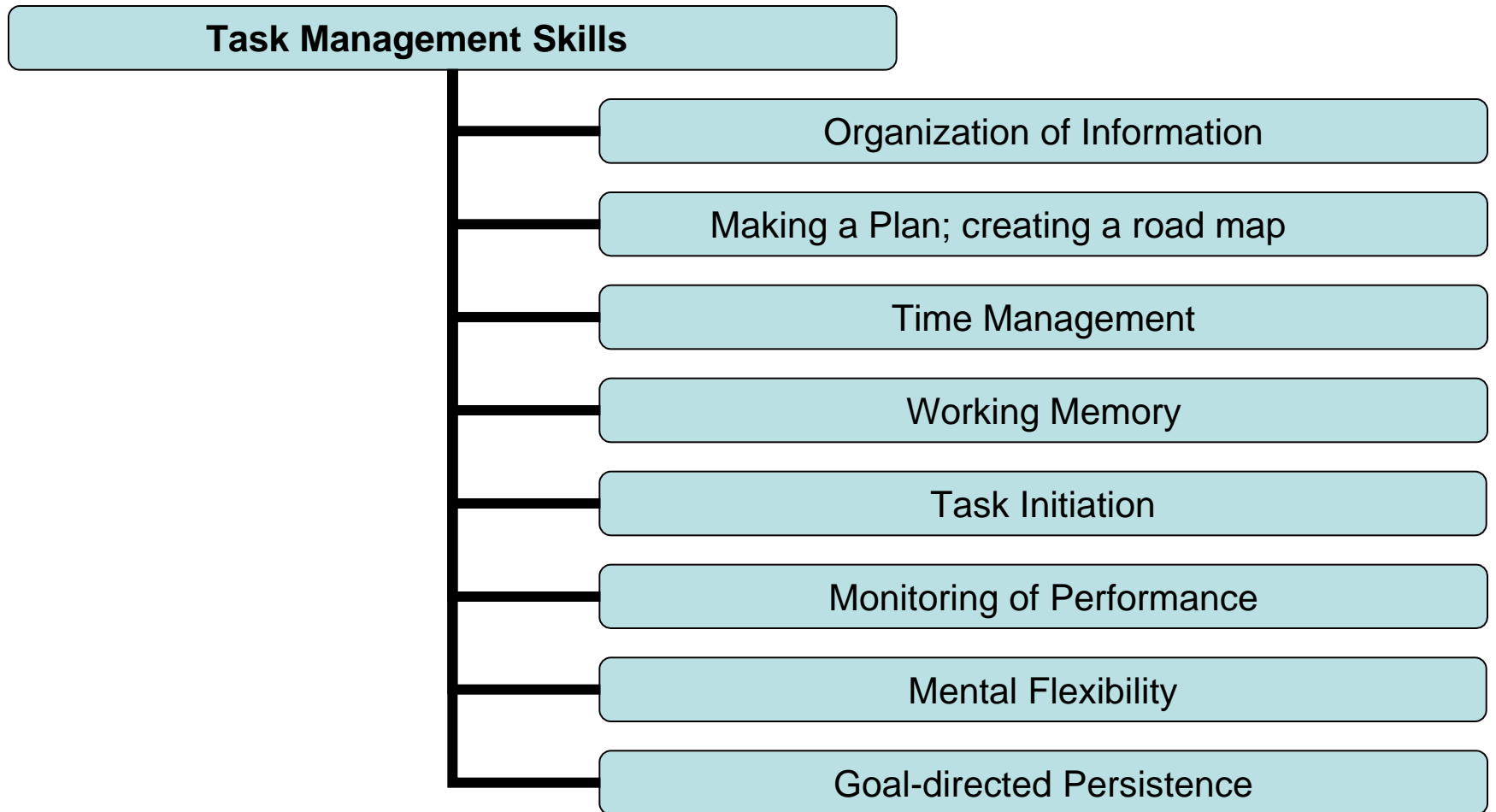
```
graph TD; A[Executive Functioning] --- B[Behavioral Regulation]; A --- C[Task Management Skills]
```

Executive
Functioning

Behavioral
Regulation

Task Management
Skills

Executive Functioning



Weak Executive Control Skills Compromise

Functioning Globally

- Inability to work independently at the level expected for age/intellectual ability and significant discrepancy between level of intelligence and ability to produce work secondary to problems such as:
 - Difficulty structuring time, space, and materials
 - Difficulty sequencing information (e.g. necessary for following instructions, making a plan for executing a multi-step test)
 - Difficulty organizing information
 - Maladaptive emotional responses to schoolwork (e.g. anxiety, reduced motivation, feelings of helplessness)

Interventions for Children with Weak Executive Functioning

Level of Intervention

```
graph TD; A[Level of Intervention] --- B[Environment]; A --- C[Change the Task]; A --- D[Develop Child's EF];
```

Environment

Verbal Prompts
Visual Cues
Schedules
Lists/Flow-chart

Change the Task

Shorter
Make the steps more explicit
Build in variety/choice
Make Expectations clear
(visual or verbal)

Develop Child's EF

Motivate child to use
existing EF skills
Directly teach EF skills

Parents as Prosthetic Frontal Lobes

- Provide a plan (“clothes, books, dishes, bed) and specific set of directions (“Put library books by the door”)
- Cue child to initiate goal-directed behavior (“Let’s start now”)
- Monitor performance (“You missed the clothes behind the chair”)
- Provide encouragement and motivation (“It looks great! When you are done, we’ll go to the mall”).
- Inhibit inappropriate responses (“You can look at those magazines later; we have to keep working now”)
- Think flexibly when plan doesn’t work (“The books that don’t fit on the shelf can go in a box to put in the attic”).

Teaching EF Skills

- Describe the problem behaviors (kindly)
- Set a goal (“get homework done by 9:00”)
- Establish plan for reaching goal (often checklists, planning sheets)
- Supervise child following the procedure (Cue to initiate and prompt for each step; give feedback, praise)
- Evaluate the process and make changes
- **FADE THE SUPERVISION**

Fading Supervision

- Steadily decrease the number of prompts and level of supervision
- Cue child to initiate and leave
- Prompt child at each step but leave between steps
- Encourage use of visual cues such as checklists
- Reduce level of detail in visual cues (e.g. single word prompts)
- Reduce the level of prompting (e.g. from “look at the checklist” to “where do you need to look?”)
- Celebrate when the child uses self-talk, “what do I need to do?” and recalls the steps for the task

Motivating the Mobilization of EF Skills

- Praise independent functioning and problem-solving (“That was a great plan for getting the yard cleaned up”)
- Use of incentives; **rewards** (play game with parent) and **contingencies** (access to TV after homework)
- Contract

Incentive Planning Sheet

Problem Behavior

Forget to do chores after school

Goal

Complete chores by 5:00 without reminders

Possible Rewards

Daily

Extra TV show

Weekly

Sleep over

Long-Term

Buy video game

Possible Contingencies

Can see friends when chores are done

Access to TV when chores are done

Contract

Child agrees to *complete chores by 5:00 without reminders.*

To help child reach goal, parents will *give child a checklist to work from*

Child will earn *five points for each day he completes chores without reminders; points can be traded for rewards*

If child fails to meet agreement, child will *not obtain points/rewards*

Homework Checklist

Tasks	Yes	No
All assignments written in book		
Books/notebooks in back pack: ___Math ___Science ___ELA ___Social Studies		
Other things to go home: ___Permission slip ___Clothes ___Sports equipment		
Homework Completed: ___Math ___Science ___ELA ___Social Studies		
Homework in Folders		
Folders in back pack		
Homework Handed In: ___Math ___Science ___ELA ___Social Studies		

Reference

Executive Skills in Children and Adolescents

By: Peg Dawson and Richard Guare
Guilford Press, 2004