Executive Function Skills and Its Effects on Student Performance - Elementary Level

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Learner Outcomes

• Increase understanding of the 11 Executive Functioning Skills

• Will review strategies to support development of executive function skills through a PBIS Framework

A Career Life Changing Perspective

• IQ test scores, under optimal test conditions, account for 40% to 50% of current expected achievement.

• Thus, 50% to 60% of student achievement is related to variables “beyond intelligence”.

How many of us use...

What are Executive Function Skills?

- Set of intrinsic skills or mental processes
- Develop gradually
- Needed for academic and social success
- Observable behaviors
- Can be explicitly taught

### Types of Executive Function Skills

<table>
<thead>
<tr>
<th>Skill Type</th>
<th>The ability to...</th>
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<tr>
<td>Impulse Control</td>
<td>Resist the urge to say or do something allowing time to evaluate situation</td>
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<td>Working Memory</td>
<td>Hold information in mind and use it to complete a task</td>
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<td>Emotional Control</td>
<td>Manage feelings in order to achieve goals, complete tasks, or control behavior</td>
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<td>Sustained Attention</td>
<td>Maintain attention to a situation or task in spite of distractions, fatigue, or boredom</td>
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<td>Task Initiation</td>
<td>Begin projects without undue procrastination, in an efficient or timely fashion</td>
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<td>Planning/ Prioritizing</td>
<td>Create steps to reach a goal and make decisions about what to focus on</td>
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<td>Organization</td>
<td>Create and maintain systems to keep track of information or materials</td>
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<td>Time Management</td>
<td>Determine how much time have, how to allocate it, and how to stay within time limits</td>
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<td>Flexibility</td>
<td>Adapt plans in face of obstacles, setbacks, new information, or mistakes</td>
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<td>Goal-Directed Persistence</td>
<td>Have a goal, follow through to completion, and not be put off or distracted by competing interests</td>
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<td>Self-Monitoring</td>
<td>Observe oneself in situation; monitor and evaluate how problem-solve</td>
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Strategic Instruction Process

How do we teach Executive Function strategies?

https://smarts-ef.org/curriculum/executive-function-curriculum/

Integrating EF into Daily Instruction

• What are the general EF skills needed to engage in the learning?
• What are the critical EF skills for completing the designed learning activity?

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• Past Practices
• Where are we now?
A Case Study

- 4th Grade Student:
  - DRA2 Fall Benchmark = 28 (GLE 40)
  - ELA Performance Task
    - Open Ended Response = 0/5
    - Writing = 3/10
  - Spelling (Words Their Way ESI)
    - 8/25 Words Spelled Correctly
    - 37/62 Feature Points
  - Math District Benchmark = 18/101
    - Fact Fluency: Addition (21/30), Subtraction (18/30), Multiplication (9/30), Division (11/30)
  - Receives Reading and Math Interventions

A Case Study, Continued

- Teacher Observations
  - Strengths:
    - Gets along with peers
    - Demonstrates leadership qualities
  - Weaknesses:
    - Difficulty following multi-step directions
    - Needs reminders for daily routines
    - Difficulty keeping track of belongings
    - Difficulty staying on task

A Case Study, Continued

- What did we do?
  - Our SRBI Team met to review data and current academic interventions
  - Teacher shared concerns regarding difficulties in the classroom
  - Team completed Executive Skills Questionnaire
  - Results Indicated:
    - Student’s Executive Skills Strengths (Highest Scores)
      - Emotional Control, Planning/Prioritizing, Sustained Attention
    - Student’s Executive Skills Weaknesses (Lowest Scores)
      - Task Initiation, Metacognition, Time Management, Goal Directed Persistence
A Case Study, Continued

<table>
<thead>
<tr>
<th>Student's Executive Skills Weaknesses</th>
<th>Strategies Implemented</th>
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</table>
| Task Initiation                      | • One task/assignment at a time  
• Reminders/Cueing to begin assignments promptly  
• Positive Praise |
| Metacognition                        | • Self-monitoring checklist  
• Teacher check-in |
| Time Management                      | • Use of timers  
• Set time limit goals |
| Goal Directed Persistence            | • To-Do checklist for areas of difficulty |

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Where do we want to go from here?

Resources

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- DVDs;
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- children’s books.