

AT for Executive Function

Compiled by Natalie Newman, 2017

Much of the information for this presentation has come from:

- Technologies and Strategies to help Students Start, Focus, and Finish Strong by Todd Hanson, 2017
- Using Technology to stay on Time, Task, and Organized by Shelly Haven, 2013
- Various websites

What is “executive function”?

Executive functions are a set of processes that all have to do with managing oneself and one’s resources in order to achieve a goal. It is an umbrella term for the neurologically-based skills involving mental control and self-regulation.

Idonline.org article 29122

Executive Function Development

- Developed by interacting with the world.
- **Practice, Practice, Practice** – Estimated that it takes 10 years to become an ‘expert’.
- Self-regulation is one of the last to develop.
 - Can be a late as 25 years of age.



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General Considerations of Executive Functioning

Basics of executive function skills:

1. Must be taught
2. Model: Explain your own thought process and steps
3. Make external everything you want student to internalize; provide visuals
4. Must be explicit (step-by step vs. general idea)
6. Break tasks into smaller pieces

7. Provide structure/framework

8. PRACTICE! PRACTICE! PRACTICE!

PROCESS QUESTIONS ARE IMPORTANT!

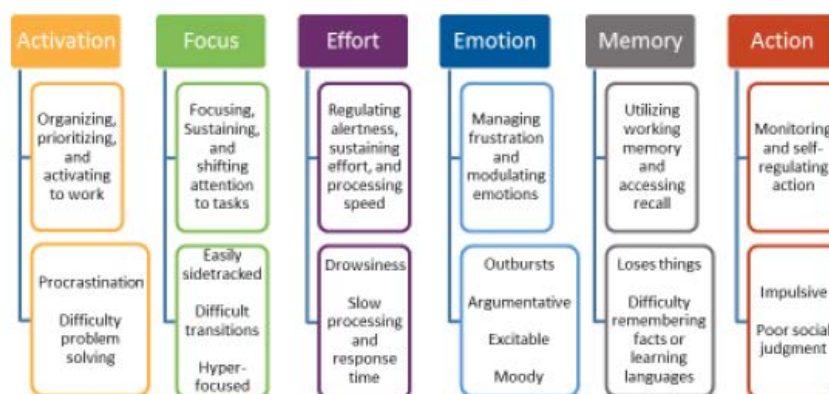
Tools may change; process will stay the same

Process Questions

- What will it take to finish this project?
- How long should each step take?
- What tools will I need for each step?
- Which steps should I do first?
- When does each step need to be completed to stay on track?
- What barriers could be in my way?

Executive Functioning Processes

Thomas Brown's Model of Executive Function



ACTIVATION/ORGANIZATION

Process Questions

- What will it take to finish this project?
- How long should each step take?
- What tools will I need for each step?
- Which steps should I do first?
- When does each step need to be completed to stay on track?
- What barriers could get in my way?

Consideration	Tools
File management	<ul style="list-style-type: none">• Master Notebook System<ul style="list-style-type: none">• Master Notebook Info• Same idea as OneNote• Cloud based<ul style="list-style-type: none">• iCloud• Google Drive• OneDrive• DropBox• Label folders by context of action rather than subject (ex. due date)
Graphic Organizers	<ul style="list-style-type: none">• Holt Interactive Graphic Organizers• Worksheets Work• Inspiration/Kidspiration
Color Coding	<ul style="list-style-type: none">• Colored paper by subject• Colored text on digital list• Calendar categories• Paint chips
Notetaking	<ul style="list-style-type: none">• 3x5 cards/post-its• Cornell Notes how-to

	<ul style="list-style-type: none"> • Review within 24 hours = increased retention • Google Keep <ul style="list-style-type: none"> • Digital sticky notes • can be tagged for sorting • web/ app <p>Read & Write for Google</p> <ul style="list-style-type: none"> • Texthelp.com • Chrome platform • Subscription service <p>Snap and Read</p> <ul style="list-style-type: none"> • Donjohnston.com • Outline to draft feature in Chrome <p>OneNote Web Clipper</p> <ul style="list-style-type: none"> • Edge or Chrome browser extension • Send web clips to OneNote <p>Screenshots</p> <ul style="list-style-type: none"> • Cut/past into notes <p>Live Scribe Pens</p>
Time and Task Management	<ul style="list-style-type: none"> • Paper calendar/planner • Digital calendar <ul style="list-style-type: none"> ○ Color coding text • Apps <ul style="list-style-type: none"> ○ Reminder apps <ul style="list-style-type: none"> ▪ Native device apps ▪ Wunderlist- iOS, Android, web ▪ Toodledo app- iOS, Android, web ○ Location reminders • Timers <ul style="list-style-type: none"> ○ Time timer/kitchen timer/sand timer ○ Timer Apps ○ Fitness tracker ○ Watch minder • False Deadlines <ul style="list-style-type: none"> ○ Breaks task into manageable chunks • Choiceworks app - iOS

FOCUS

Process Questions

- What is important now?
- What do I need to do this?
- What should I put away?
- What am I doing – what am I supposed to be doing?

Consideration	Tools
Work Space –physical and virtual	<ul style="list-style-type: none">• Uncluttered• Music should not distract• Do not disturb features on electronics• Clean up readability of web pages
To-do/task lists	<ul style="list-style-type: none">• Priority list• Wunderlist- iOS, Android, web• toodledo app- iOS, Android, web• myhomework – iOS; Google• Search “reminder/task apps”
Assignment calculator	<ul style="list-style-type: none">• UBC Assignment Calculator
Study schedule	<ul style="list-style-type: none">• (10+2) x 5 principle (43 folders)• Pomodoro - (25+5) x 4
Kanban Board	<ul style="list-style-type: none">• To do / Doing / Done• Can color code• Actual or digital

EFFORT

Process Questions

- How am I doing/feeling right now?
- Is there anything that is pulling me down?

Consideration	Tools
Motivation	<ul style="list-style-type: none">• External vs. Internal locus of control• Written? Kitten!<ul style="list-style-type: none">• Set goal of typed words• + reinforcement• Write or die<ul style="list-style-type: none">• Set goal of typed words• - reinforcement• paid feature• Rewards/tangibles
Timers/breaks	<ul style="list-style-type: none">• Timers<ul style="list-style-type: none">○ Time timer/kitchen timer/sand timer○ Timer Apps○ Fitness trackers○ Watch minder• Study Schedule<ul style="list-style-type: none">○ Pomodoro Technique (25+5) x 4○○ (10+2) x 5 principle

EMOTION

Process Questions

- How am I feeling right now?
- Is there anything I should deal with?
- Can I take anything off my plate?

Consideration	Tools
Music	<ul style="list-style-type: none">• Different for every person• Should not be a distraction
Fidgets/ball chairs	<ul style="list-style-type: none">• Different for every person• Should not be a distraction
Exercise/yoga	<ul style="list-style-type: none">• Activity cards• Activity apps
Aromatherapy	<ul style="list-style-type: none">• Different for every person• Scents for calm/focus
Meditation/relaxation	<ul style="list-style-type: none">• games/apps• Meditation

MEMORY

Process Questions

- What are the key concepts?
- How do these things fit together?
- What connections can I make with what I know?

Consideration	Tools
Scaffolding	<ul style="list-style-type: none">• Low stakes → high stakes• Break in to small chunks• Demo →do together → do by self
Notes	<ul style="list-style-type: none">• Cornell Notes example• Audio recording<ul style="list-style-type: none">◦ SoundNote - iOS• Strategic highlighting• OneNote Web Clipper• Inspiration- drag and drop into template• Live Scribe Pens
Active reading	<ul style="list-style-type: none">• Pre-reading/summaries<ul style="list-style-type: none">◦ Sparknotes.com◦ Cliffnotes.com◦ Free Book Notes◦ Wikipedia
Flashcards	<ul style="list-style-type: none">• Color code<ul style="list-style-type: none">◦ Paper◦ ink• Quizlet.com/flashcardlet.com• StudyBlue.com• Brainscape – multi platform• Flashcard puzzles

ACTION

Sustaining and making this your own

Process questions:

- All of the above

Considerations	Tools
All of the above	All of the above

Websites with A LOT more resources!

- [Newton Assistive Tech](#)
- [Notetaking supports](#)
- [AT for EF](#)
- [EF Apps Matrix](#)
- Just search *technology for executive function*