I Hate To Write: Executive Functioning Strategies To Help Reluctant Writers Increase Academic Achievement and Improve Behavior

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The many labels of Executive Function Disorder
Students with executive function challenges are often labeled:
• Lazy
• Disorganized
• Hyperactive
• Learning disabled
• Autistic
• Behavior problems

Executive Function – a definition

Executive Function: Cognitive processing of information that takes place in areas in the left frontal lobe and prefrontal cortex that exercise conscious control over one’s emotions and thoughts.

This control allows for patterned information to be used for organizing, analyzing, sorting, connecting, planning, prioritizing, sequencing, self-monitoring, self-correcting, assessment, abstractions, problem solving, attention focusing, and linking information to appropriate actions.


What do Executive Function challenges look like in the classroom?
In the classroom, the student with EF challenges may struggle to:
• make plans (What should I do first?)
• keep track of time (is it time for recess yet?)
• keep track of more than one thing at once (I have to spell correctly AND check punctuation?)
• meaningfully include past knowledge in discussions (What do you mean we talked about this yesterday?)
• Work in a group (Somebody else can do it)
• change our minds and make corrections while thinking, reading and writing (it’s done, Why should I change anything?)
• finish work on time (There are so many more interesting things to do)
• ask for help (It’s embarrassing)
• wait to speak until we’re called on (but I need to know NOW!)
• seek more information when we need it (That just means I will have to write more)

More classroom clues that a student might have EF challenges

In the classroom the student with EF challenges may struggle to:
• Finish a ‘packet project’ (This research packet has 15 pages!!!)
• understand how much time a project will take to complete (I’ll do it tomorrow)
• Write in an organized, sequential manner (I just want to get it down and done)
• retrieve information from memory (But I really DID study!)
• Get started (There are so many cool ways I could do this!)
• Multitask (How can I finish my morning work AND write down the assignments that are on the board?)
• Regulate emotions

EF The Conductor of the Symphony Orchestra

• Activation (organizing, prioritizing activating)
• Focus (focusing sustaining and shifting attention)
• Effort (pacing, managing time, resisting distraction)
• Emotion (managing frustration and regulating/modulating emotions)
• Memory (utilizing working memory/access recall)
• Action/monitoring/self regulating action/inhibiting
• (Dr. Thomas Brown Model of Executive Function)

6/9/2016
Processing Speed

- Processing speed is the pace at which you take in information, make sense of it and begin to respond. This information can be visual, such as letters and numbers. It can also be auditory, such as spoken language.
- Doing written projects that require details and complex thoughts
- Being able to finish tests in the allotted time
- Listening or taking notes
- Reading and taking notes
- Finishing homework in the expected time frame
- Listening or taking notes when a teacher is speaking
- Solving simple math problems in their head or complex problems on paper
- Keeping up with conversations

Attention and Focus

- Listening to what is important to attend to and blocking out other stimuli.
- Focusing (knowing what is important to attend to and filtering out what is not important.
- Staying on topic
- Controlling feelings of disinterest or boredom
- Not drifting off task
- Shifting attention and focus
- Maintaining focus to complete a task

Regulating Emotions

- Intentionally decreasing or increasing the intensity of an emotion, and deciding whether or not to act on an impulse or desire.

Frustration/Aggression

- Dealing appropriately with frustrations and controlling impulsivity

EF – working memory

- Working Memory (Short-term memory): This memory can hold and manipulate information for use in the immediate future. Information is only held in working memory for about a minute.
- The memory-working span of young adults is approximately seven for digits, six for letters, and five for words.

EF- Working Memory

- Remembering a thought, sentence idea that you want to write and holding onto it while writing
- Being able to remember what you have read and how it applies to what is then being read
- Being able to keep one piece of information in mind while working with another
- Remembering a phone number while trying to dial it
- Learning letter sounds and sounding out a word
- Keeping in mind numbers when borrowing and carrying
Why is the writing process so hard for kids with Executive Function challenges?

Let's look at a few of the skills needed for writing:

- Language skills
- Imitation skills
- Initiating
- Organization, Prioritizing, Sequencing
- Problem solving
- Auditory and visual memory
- Sensory regulation/Emotional regulation
- Balance and Proprioception
- Fine motor/Gross motor control
- Attention/focus

Now let's look at a few of the skills that are hard for kids with executive function challenges:

- Language skills
- Imitation skills
- Organization: prioritizing, sequencing
- Problem solving
- Auditory and visual memory
- Sensory regulation/Emotional regulation
- Balance and Proprioception
- Fine motor/Gross motor control
- Attention/focus

According to the 2011 National Assessment of Educational Progress (NAEP), only 24% of 8th graders, and 24% of 12th graders performed at ‘proficient’ level of writing achievement.

This means that only one out of four students meet standards to be considered ‘proficient’ writers!

The Mayo Clinic reported that one in six school age children has a Specific Learning Disability in written expression.

Katusic and Colligan, 2009

Link between Writing and Learning Disabilities

1. Strong association between Specific Learning Disabilities and Written Language Disorder

2. Problems with writing can be seen at any age but tend to be increasingly apparent as children move through the early elementary grades and the demands of independent task completion become greater.
Link between Writing and Speech / Language Skills

1. Strong association between S/LI and WLD
2. Among children with S/LI, the cumulative incidence of WLD by age 19 years was 61.4% for boys and 55.1% for girls. (Among children without S/LI, the cumulative incidence of WLD by age 19 years was 18.5% for boys and 9.4% for girls)

Katusic, Ruth E. Stoeckel, Early Speech-Language Impairment and Risk for Written Language Disorder: A Population-Based Study (Mayo Clinic)

Link between Writing and ADHD

1. Strong association between ADHD and WLD
2. Among children with ADHD, the cumulative incidences of WLD were 64.5% for boys and 57.0% for girls. In contrast, among children without ADHD, the cumulative incidences of WLD were 16.5% for boys and 9.4% for girls.

Link between Writing and Autism Spectrum Disorder

1. Strong association between ASD and writing challenges
2. Students with ASD demonstrated a decrease in legibility, complexity, and number of words used during handwriting tasks

Written Language_profile of Children and Youth with Autism Spectrum Disorder: Research in Practice, Education and Training in Developmental Disabilities, 2015, 9(1), 20-29 © Section on Developmental Disabilities, Brainard, Mays, Mukherjee, Madsen, Corden, Bartoli, Debbashri B. Ghosal

Executive function - cerebral cortex

Cerebral Cortex: This outer layer of the brain where most neurons are located is also called gray matter due to the coloration of the neurons. The cerebral cortex is associated with the highest cognitive processes, including planning, decision-making, reasoning, and analysis.

If a student struggles with planning, decision making, reasoning, and analysis, he will struggle with writing.

Executive function - cerebellum

Cerebellum: The lower posterior region of the brain that supervises coordinated movement, posture, and balance and adjusts actions in response to external cues, such as the height of your desk. The greatest numbers of connecting neurons to and from the frontal lobe are in the cerebellum. This area is largely responsible for long term, automatic memory.

If a student struggles with coordination, and long term, automatic memory, he will struggle with writing.

A mini tour through the brain: Executive function - frontal lobes

Frontal Lobes: With respect to learning, the frontal lobes contain the centers of executive function that organize and arrange information and coordinate the production of language and the focusing of attention.

If a student struggles with organization, language, and attention, he will struggle with writing.
**Executive Function – Limbic / Amygdala**

The **Amygdala** is part of the Limbic System which controls emotions, especially threat and anxiety. When the amygdala is in a state of stress, new information can’t pass through the amygdala’s filter to gain access to the planning, organization, and memory circuits of the brain.

Common stressors in the classroom: (these can affect writing!)
- fear of being wrong,
- embarrassment about reading aloud,
- test-taking anxiety,
- language limitations,
- negative peer relationships (including gender)
- frustration with difficult material,
- boredom from lack of interest.

Home stressors carried into the school day

If a student feels stressed, his brain will function inefficiently in planning, organization, and memory. This will affect his writing and learning. (Interesting study: Amygdala, Cooties, and Crushes, Journal of Neuroscience, April 2015)

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**Executive Function – Parietal Lobes**

Parietal lobes on each side of the brain process sensory data, contain the ‘monkey see / monkey do’ neurons, and help with spelling.

If a student can’t imitate how to make his letters or where to put his hands for homorow position, he will have trouble writing.

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**Executive Function – Prefrontal cortex**

Prefrontal Cortex (front part of the frontal lobe): The prefrontal cortex is where conscious decisions are made. It controls judgement, prioritizing, and delayed gratification. It is the last part of the brain to mature. The prefrontal cortex does not fully mature until around age 19.

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**So….why teach writing?**

**Answer: the research shows:**

*Writing can increase achievement in ALL areas*

1. Writing about material that has been read increases comprehension
2. Teaching students how to write increases reading comprehension, fluency, and word reading.
3. Increasing amount of student writing increases reading comprehension

“Writing to Read”, Graham and Hebert, Harvard Educational Review, 2010

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**We can help ALL of our students be better writers – even those students with Executive Function differences!**

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**For ALL writing tasks:**

*Set your students up for success!*

Before they start writing, make sure to address these things:

- **Language** – Do they really understand the task?
- **Organization** – Does the task need to be broken down into smaller chunks?
- **Sensory** – Is there distraction that can be eliminated? A need to move?
- **Motor** – Are poor motor skills impacting writing?
**LANGUAGE:** Make sure the student really understands what he is supposed to do:

- Simplify directions. Use less words, slower rate, spaces between directions
- Give a visual example whenever possible
- Break assignment into smaller chunks

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**Accommodating Language Delays in reluctant writers:**

**Break the task into two parts:**

1. **Content:** First, give the student several blank strips of paper. Have him write one complete sentence about the topic on each strip.

   THEN

2. **Organization:** Help him number the strips, putting them into a logical order.

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**Help your students with language delays learn to plan and draft their writing - Use a timeline**

(Teacher prompts: “Tell me about our trip to the apple orchard. What did we do first?” For each experience that the child relates, the teacher draws a very simple picture on the timeline. After the child has related enough items for a sequential story, the teacher numbers her pictures. Then, in paragraph form, the child writes a sentence for each numbered picture.)

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**Writing Process: Planning and Drafting**

*Students with Executive Function differences may need additional supports*

- Think about what you are trying to teach the student. If your goal is to teach organizing sentences into paragraphs, you may need to reduce the motor demands.

**Here’s one way to do it:**

- Writing the sentences may be so frustrating for students with EF challenges that they give up before they ever reach the organization stage. Have someone else type the sentences.
- Then have the student cut and paste (either by hand or using a keyboard) the sentences into an organized paragraph.

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**Provide a Framework: Make a Timeline**

*Not just for elementary students!*

**Assignment:** Write a report on Martin Luther King.

The student tells the teacher what he knows about the subject. For each fact that the student relates, the teacher writes a keyword on the timeline. When the student has related enough items for a sequential report, the teacher numbers the keywords. Then, in paragraph form, the student writes a sentence for each keyword.

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**Spelling Word**

<table>
<thead>
<tr>
<th>school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glue your sentence here:</td>
</tr>
<tr>
<td>We learn to write at school.</td>
</tr>
</tbody>
</table>

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**Spelling Word**

<table>
<thead>
<tr>
<th>school</th>
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</thead>
<tbody>
<tr>
<td>Copy your sentence here:</td>
</tr>
<tr>
<td>We learn to write at school.</td>
</tr>
</tbody>
</table>
Students with EF challenges need to use support strategies often enough that the strategy becomes internalized for independence.
Provide a framework: The teacher narrows the choices and provides a framework for the introductory paragraph.

Assignment: Write three paragraphs about your favorite president.
Washington  Lincoln  Reagan  Obama
1. ___________ was the __________ President of the United States
2. ___________ was President from __________ to ___________.
3. ___________ did many important things for our country.
4. One of those important things was ___________.

Write at least 3 paragraphs about this president on a separate sheet of paper. Use these sentences for your first paragraph.

GRAPHIC ORGANIZERS

A graphic organizer can be written as a list or outline
• Graphic organizers give students another way to see mentally, as well as visually and kinesthetically, and manipulate the information.
• Graphic organizers allow students to create visual pictures of information in which their brains discover patterns and relationships.
• When the brain can find and interpret information as a pattern, it receives the information as meaningful input for memory storage.
• Samples of graphic organizers can be found at these websites:
  • http://www.teach-nology.com/web_tools/graphic_org/

Organization: Provide a framework for all categories. Use graphic organizers to teach organization and sequence.

Organization: More examples of graphic organizers
Provide a framework: Graphic Organizer for building a paragraph

Use graphic organizers OFTEN to internalize independent use of the skill.

Graphic Organizer for Persuasive Writing
Provide a framework: Use as few words as possible. Pick one graphic organizer and use it for several assignments, to help this type of support become automatic for the student.
Graphic Organizer for fiction writing

Provide a framework: Use scaffold / graphic organizer with as few words as possible. After the student fills out the graphic organizer, have them read it aloud to a peer. The peer can offer ideas / suggestions. If you are teaching revision / editing, this is a good way to start.

Graphic Organizer Technology

- Lucidchart: Free graphic organizer through the chrome web store
- Student can then print it, share or export to google drive [video]

Chunking longer assignments – essential for students with EF challenges

Writing a Book Report

TITLE PAGE

The Title of my Book is:

__________________________________________________________

The Author of my book is:

__________________________________________________________

My Name: ________________________________________________
My Teacher’s Name: ________________________________________
Today’s Date: _____________________________________________

Main Characters

The main character in this story is:

__________________________________________________________

One interesting thing about ______________ is

__________________________________________________________

Other characters in this book are:

__________________________________________________________

__________________________________________________________

__________________________________________________________

GIVE THIS PAPER TO MY TEACHER ON _________________

Setting

Most of this story takes place

in a house  in a forest  in a school  somewhere else – write it

One interesting thing about this setting is:

__________________________________________________________

__________________________________________________________

__________________________________________________________

GIVE THIS PAGE TO MY TEACHER ON ____________________

Plot

At the beginning of the book, the main character

(Write what the main character is doing when the story starts.)

What happens next?

__________________________________________________________

__________________________________________________________

Then what happens?

__________________________________________________________

__________________________________________________________

Write one more interesting thing that happens

__________________________________________________________

GIVE THIS PAPER TO MY TEACHER ON ____________________
The Ending

At the end of the story: ____________________________
______________________________________________
______________________________________________

Write how the story ends ____________________________
______________________________________________

What I think this book was: ____________________________
______________________________________________

GIVE THIS PAPER TO MY TEACHER ON ___________

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**WIRC: Writing Intensive Reading Comprehension – federal grant 2005**

- 3 year study of 4th and 5th graders in urban settings
- Taught Reading and Writing concurrently – as opposed to ‘read first, write later’
- ‘Two Handed Reading’ with ‘thinksheets’: one hand on the text and the other hand ready to write on the ‘thinksheet’

*Increased achievement in reading and writing*

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**SENSORY: For all writing tasks:**

Set the student up for success by reducing sensory stimuli:
1. Remove everything from the writing area except paper and writing tool.
2. Provide visual barrier
3. Allow highly distractible/sound sensitive students to wear headphones.

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**SENSORY REGULATION/ATTENTION AND FOCUS: For all writing tasks:**

Set the student up for success by adding movement/exercise opportunities before writing
1. Have the entire class do Hindu Squats at desk
2. Have the entire class run in place
3. 10-10-3: Have the entire class silently rub hands on thighs 10 times, rub hands together 10 times, then take 3 deep breaths

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**THINKING OUT OF THE BOX:**

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**Aerobic Exercise**

- Aerobic exercise: gets the heart rate up and greatly impacts executive functioning/learning
- Jumping jacks
- Jog in Place
- Sit down/stand up/sit down/stand up
- Physical activity every 15 minutes
- Change positions as teacher instructs in different areas of class
Exercise is an Evidenced Based Practice with Autism

- 20 minutes twice a day: stretch, scooter boards, weights, jog, walk, big muscle, yoga
- Every hour for 1 minute: jog in place, yoga, stretch
- Negative behaviors decrease/positive behaviors increase

Your Brain On Exercise

Exercise helps to control ADHD symptoms through raising the baseline levels of dopamine and norepinephrine by spurring the growth of new receptors in certain brain areas.

Exercise and ADHD

- Exercise helps to control ADHD symptoms through raising the baseline levels of dopamine and norepinephrine by spurring the growth of new receptors in certain brain areas.
- Swimming martial arts, gymnastics, wrestling, track, tennis archery baseball
- (ADDitude.com John Ratey, MD)

Build EF – attention and focus

- For students with attention focusing difficulties, each time they focus their attention they are activating the brain's alerting and focusing pathways.
- This repeated stimulation of these pathways makes the neural circuits stronger and increases their ability to actively direct their attention where it is needed.

Regulating Emotions

- Small changes are processed as big problems. – such as my pencil broke – similar to the way another person would process a major change – such as being told you lost your job.(Gomot & Wicker, 2012).
- Aggression, meltdown: Does not have the skills and struggle with problem solving

Frustration /Aggression

- Reactive Aggression
- Not planned in advance
- Occurs because the individual does not have the skills to problem solve, recognize feelings in self, match feelings to event, and calm self
Emotional Regulation

• EXERCISE
• Provide a safe place
• Work goes with the student to his safe place or home base
• May be scheduled or occur on an as-needed basis
• Use of a visual pass to go
• Alert all team members
• Five Point Scale

Improving EF Language Processing

• The amygdala becomes metabolically hyperactive during periods of high stress
• In this hyper stimulated state, new information does not pass through the amygdala to reach the information processing centers of the brain.
• Students are not able to process and learn

Make It Fun

• Neuroimaging studies of the amygdala, hippocampus and rest of the limbic system, as well as measuring of dopamine and other transmitters
• There is an extreme increase in long term memory and higher order cognitive skills when students experience trust and positive feelings towards teachers and supportive classrooms and schools
• Remember the 10/2 Strategy: For 10 days for 2 minutes per day have an engaged relationship building period with a student.

Brain Breaks/Focused Attention Breaks

• Brain Breaks: Syn-naps: Any pleasurable activity (singing, walk about the room and chat with friends,
• Listening to music, having a few pages of a class book read aloud to them, or sharing jokes) used
• The Amygdala listens to breathing and movement
• Even as a brief break can give the amygdala a chance to “cool down” and the neurotransmitters time to rebuild, as the students are refreshed.

Dopamine Release

• Dopamine is a neurotransmitter that is best associated with attention, focus, decision making and executive functioning
• Greater dopamine release during play, laughing, movement exercise and receiving praise, intrinsic satisfaction, optimism and choice, being read to
Dopamine Strategies to make learning release dopamine

- Pantomime or draw sketches of math or science vocabulary words
- Word Gallery: Vocabulary review for science terms can incorporate movement,
- Positive peer interactions, even music. If students have a list of vocabulary words they can walk around the room and write the number of the poster that has a verbal or pictorial representation of word/charts.
- Scaffold by allowing some students have a one-word definition or work with a partner as they boogie the vocabulary words to music.

Focused Attention Break

- Focused attention break: being present and clearing the brain engages the parasympathetic nervous system, decreasing heart rate and increases our coping skills
- When the mind is quiet and focused we can then be present with a sound, sight taste
- Close eyes and focus on listening to the sounds outside

Calming Deep Breathing

- Belly Breathe: Breathing in through your nose to a count of 1-2-3-4, Exhale through your mouth 1-2-3-4
- Place one hand on your stomach

MOTOR: For all writing tasks:

Set the student up for success:
Make sure feet can be flat on the floor, and desktop height is 1 – 2 inches above a bent elbow

A brief history of education and handwriting

In the 1960s and 1970s, writing instruction heavily emphasized handwriting and spelling and neglected composing.

In the 1980s and 1990s, writing instruction heavily emphasized composing, and neglected handwriting and spelling.

Handwriting research – writing by hand engages the brain in learning

IU study in 2010: Kids ‘manned the spaceship’ for functional MRIs to measure brain activity.
First group: Letters shown, taught, discussed
Second group: letters shown, taught, discussed, AND WRITTEN
MRI showed that neural activity was much more enhanced and ‘adult like’ in second group
**Printing Skills**

- Explicitly teach letter formation
- Auditory component is very important
- Hands on experience and repeated practice of part to whole and top to bottom formation
- Handwriting Without Tears
- Zaner-Bloser

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**Handwriting**

- Develop a strong motor memory for letter formation
- Primary paper lines are frequently too large
- Close point vs long distance copying
- Motor delays impact speed of written work

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**Handwriting Warm Ups**

Set the student up for success. **BEFORE WRITING**, have student do a couple of two handed movement exercises. This encourages two handed writing, plus it stimulates the vestibular system, increasing attention, focus, body stability, and language.

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**Handwriting**

If handwriting looks like this, give student heavy lined paper with larger spacing. (free at www.printablepaper.net) or highlight lines

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**Handwriting Accommodations**

- What is the purpose of this writing task?
- Have the student write the main idea to respond to a question instead of complete sentences
- Instead of short answers or essay format could the student circle the correct answer?
- If you want to know what he knows could he answer orally?
Accommodations for Handwriting

• Many students with EF challenges cannot focus on listening and taking notes at the same time:
• Make a copy of another student’s notes/carbon paper
• Provide a copy of teacher’s notes

Handwriting

If your student is writing too small, he is probably holding his pencil too close to the tip. Provide a pencil grip, or wrap masking tape around the pencil where fingers should go.

Handwriting

If your student is writing too large, he probably is using his big muscles rather than his fine muscles. Look at the height of his desk and chair. The pencil may be positioned too high.

Handwriting

Give a visual start and stop point for each sentence. This will help the student avoid running out of room at the edge of the page.

Teach spacing:
Student dictates, teacher draws yellow lines or boxes for words.
Spacing Between Words

- Teacher models with extra large spacing
- Finger space
- Spaceman/tongue depressor
- Spaghetti space vs meatball space
- Clever cat
- Keyboarding/space bar reinforces spacing

Handwriting vs keyboarding

“Our current research shows value in combining writing by pen and computers in implementing evidence-based writing instruction for letter production, spelling, and composing.” Studies were on typical students. Students with EF needs may be more successful with technology support.

Dr. Virginia Berninger, University of Washington, 2014

“What’s Lost as Handwriting Fades”

USE BOTH

Keyboarding

- Offer keyboarding instruction (2-3 xs per wk)
- By 3rd grade developmentally ready for keyboarding
- Typing Instructor
- Type To Learn
- Free Websites
- Color coded keyboards
- Sticker dots for home row keys

Assistive Technology

- Allow brain storming with speech to text
- Support editing and revising with text to speech
- Support Spelling and working memory challenges with word prediction
- Read & Write Gold

Technology

- Support “I Hate To Write” anxiety, working memory and grapho motor needs with the Dochub app or SnapType
- Dochub in the classroom

DocHub

Support Working Memory/Spelling with Assistive Technology

- Google Read & Write Gold: Word prediction
- Solo: Co: Writer
- Use of speech to text through Google for brainstorming ideas
- Inspiration or Kidspiration as a graphic organizer
### Revising and Editing – a challenge for many students with Executive Function differences

Only revise / edit one item at a time!

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 1 | Check for capital letters.  
• First words in sentences  
• Proper nouns – people, places, dates, etc. | I did it |
| 2 | Check for punctuation ( . ? ! , “ ” )  
• At the ends of sentences  
• After abbreviations like Mr. and Dr. | I did it |
| 3 | Check for spelling  
• If you aren’t sure, check the dictionary or Word Wall | I did it |
| 4 | Check for grammar  
• Make sure you didn’t leave out little words like ‘a’, ‘an’, ‘the’, ‘as’, ‘but’, | I did it |
| 5 | Check to make sure your writing makes sense  
• Touch each word as you read it. Does it make sense? | I did it |
| 6 | My teacher also wants me to check __________ | I did it |

### Editing and Revising for younger students

www.teacherspayteachers.com

### Edit and Revise with Assistive Tech

- Google Read & Write Gold: Text to Speech
- Solo Suites: Write: Outloud

### Mnemonic devices can be valuable tools for writers with EF differences

Find one mnemonic and stick with it.
The goal is for the student to develop a life long strategy that works for him.

### Teaching Punctuation – Use visuals whenever possible
Teaching Capitalization – Use visuals whenever possible

Expanding Expression Tool (EET)
A commercial tool designed to build written expression skills in reluctant writers

THE LATEST NEWS: White pine academy in Leslie, MI reported that their 4th grade writing scores went up 32% from using the EET (press release).

Project Mapping
Plan and Prioritize for Big Projects
• Uses task analysis, a calendar, and sticky notes to organize and plan the steps needed to complete a complex, multi-step project.
• First identify finished project and date and put at the bottom
• Brainstorm steps needed on sticky notes
• Title columns: Not begun, In Progress, Completed

Title Page
My report is about _______________________________
My Name: __________________________
Date: _________________________________

Draw a picture about your topic:

TURN THIS PAGE IN TO YOUR TEACHER ON ____________________

Research
Find __2__ books about your topic.

Book # 1:
Title: _________________________________
Author: ______________________________
Year the book was written: ______________

Book # 2:
Title: _________________________________
Author: ______________________________
Year the book was written: ______________

TURN THIS PAGE IN TO YOUR TEACHER ON ____________________
### Gathering Information - Books

Find two interesting things about your topic from Book #1. Then find two different things about your topic from Book #2.

**Book #1:**
1. 
2. 

**Book #2:**
1. 
2.

TURN THIS PAGE IN TO YOUR TEACHER ON __________

### Gathering Information - Internet

Find one interesting internet site about your topic. You have ___ minutes to choose a site. Then write three interesting things about your topic. They must be different from the things you chose from books.

**Website:**

Three interesting things about my topic (Must be different from what you wrote about Book #1 and Book #2)

1. 
2. 
3.

TURN THIS PAGE IN TO YOUR TEACHER ON __________

### Writing the Rough Draft - Introduction

Write the first paragraph of your report. This is a rough draft, so your teacher must be able to read it, but your writing does not need to be neat. Your teacher will make corrections and changes to this rough draft. You will write the final copy later.

**Introduction Paragraph – 3 sentences**

1. **Write a topic sentence that tells what your report is about:**
2. **Write a sentence that tells why your topic is interesting:**
3. **Write a sentence that tells the MOST important thing about your topic:**

TURN THIS PAGE IN TO YOUR TEACHER ON __________

### Writing the Rough Draft - Body

Write the second paragraph of your report. This is a rough draft, so your teacher must be able to read it, but your writing does not need to be neat. Your teacher will make corrections and changes to this rough draft. You will write the final copy later.

Ask your teacher to give you your research sentences from Book #1, Book #2, and the Internet. Your teacher can help you number the sentences so they are in a good order for your report. Copy the sentences, in the right order here. Your teacher might want you to add more sentences.

1. 
2. 
3. 

TURN THIS PAGE IN TO YOUR TEACHER ON __________

### Processing Speed

- In the brain of an individual with autism there is a smaller frontal lobe and decreased white matter density. These could be indicators for reduced processing speed in Autism
- (Temporal Lobes: These lobes on the sides of the brain process auditory and verbal input, language and phonetic discrimination, mood stability through projection fibers leading to limbic system, and learning.)
Strategies That Work

- Chunk information: Take step-by-step approaches to work; rely on visual organizational aids.
- Provide a time frame for each chunk of the task
- Time Management: Use tools like visual timers, computers or watches with alarms.
- Prepare visual schedules and review them several times a day.
- Ask for written directions with oral instructions whenever possible.

Useful Strategies

- Use visual calendars to keep track of long term assignments, due dates, chores, and activities.
- Managing space and materials
- Focus (Reading Study): Students are most focused when they know they will have to do something with the information. (PET scan and reading study—the greatest brain
  activation when the students were told they would have to retell the story). (work with a partner—one to read, both to think, one to write)
- Organize work space
- Minimize clutter.

Strategies That Make a Difference

- Consider having separate work areas with complete sets of supplies for different activities.
- Schedule a weekly time to clean and organize the work space.
- Managing work
- Make a checklist for getting through assignments. For example, a student’s checklist could include such items as: get out pencil and paper; put name on paper; put due date on paper; read directions; etc.
- Meet with a teacher on a regular basis to review work; troubleshoot problems.

Improving Executive Functioning

Remember

- Use more senses
- The experiential education motto is that you learn 40% of what you hear, 60% of what you hear and see, and 80% of what you hear, see, and do.

If it’s not working, ask yourself:

- Setting (sensory): Is the room noisy? Is there clutter in his workspace?
- Seating (motor): Is he uncomfortable? Does he need a different place to write?
- Task (organization): Is the task too big? Do you need to break it down into smaller chunks?

If it’s not working, continued:

- Timing (organization): Is the wait time too long between directive / writing / reinforcement?
- Directions (language): Was there too much talking? Does he need a prompt?
- Attention (sensory): Did you get his attention before giving the task?