

PART II:

Command Central for the Brain

The Importance of “Connect-the-Dots” Lessons for Teaching Executive Functioning Skills

In Part One of this article series, published in the October-November 2016 issue, we discussed that executive functioning skills are the true command center of the brain. We reviewed that executive functioning skills help the brain organize and act on information to manage life tasks of all types. For example, executive functioning skills enable students to plan, organize, remember things, prioritize, pay attention and get started on tasks. In addition, they also help students use information and experiences from the past to solve current problems. Simply put, this command center is in charge of making sure things get done - from the planning stages of any task to the final deadline. This is why executive functioning skills are crucial to classroom success.

THE IMPORTANCE OF EXPLICITLY TEACHING EXECUTIVE FUNCTIONING SKILLS

In the first part of this article series, we pointed out that, year after year, teams wrestle with improving executive functioning skills for struggling students. As teachers, we cannot simply provide strategies, accommodations or tools with the hope that our learners will develop executive function skills. Instead, we need to first teach our students how the brain learns, the role of executive function in this process and fundamental word knowledge of key executive functioning concepts.

It is impossible to overstate the importance of explicitly teaching executive functioning skills to learners of any ability within structure and routines.

As we shared previously, we have trained thousands of teachers to expand their depth of understanding of how executive function develops and the impact it has on learning by using consistent lessons, tools and strategies that keep students on task and increase such crucial skills. In addition, we stated that we have had significant success using the research-based methodology of T.H.E. P.A.C.T. framework to directly teach students of all abilities fundamental knowledge of executive functioning skills and increase their understanding of the tools we put into play to assist them in the classroom.

Students with executive functioning issues respond very well to increased structure, routine and predictability in their lives. This has been proven time and time again. This directly aligns with the



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foundational principles of T.H.E. P.A.C.T., which are consistency and predictability. This is one of the primary reasons why the methodology of T.H.E. P.A.C.T. is so effective as a teaching framework for learners of all abilities. When students know what to expect, it decreases cognitive load, increases their participation and improves their independence.

PART TWO: THE “CONNECT-THE-DOTS” METHODOLOGY OF T.H.E. P.A.C.T. FOR TEACHING EXECUTIVE FUNCTIONING

In Part Two of this article series on executive functioning, we will walk you through a chain of vocabulary building lessons - using both print-based and interactive tools - for students to learn about the concepts of organization, planning, prioritizing, initiating and monitoring tasks and time management related to daily classroom assignments and long-term projects. Language lessons will also include learning about important executive functioning tools. Creative and engaging vocabulary lessons will include language-based games, reference tools and hands-on projects.

In addition, we will connect these vocabulary lessons to “reading-to-learn” lessons for students to expand their knowledge base and read about these executive functioning skills and tools. Real-life student examples of lessons will be outlined using talking concept maps and interactive sequence lists and timelines, along with accessible books and study guides. You will learn the importance of creating a library of executive functioning resources to complement explicit in-person instruction as it relates to independent learning opportunities for review and practice.

CONTENT ORGANIZATION AND CURRICULUM PLANNING

Educators often struggle with how to organize the content they need to teach. Regardless of the level of organization a particular teacher embraces, preparing curriculum content needs to include time set aside for planning and have some type of system for prioritizing information.

You may be thinking, “Where would I possibly begin when preparing to teach executive functioning skills?” We would like to share with you examples of free tools that educators are using to orga-

nize, plan and prioritize their content. These are called T.H.E. P.A.C.T. Curriculum Planning Tools and they may be helpful to you when identifying key concepts, corresponding definitions, related concepts and more complex text for the students you serve.

The Learn About Module focuses on teaching a solid understanding of word meaning and word knowledge. T.H.E. P.A.C.T. Curriculum Planning Tools for the Learn About Module outline four essential components of teaching vocabulary:

- The vocabulary word or key concept
- The definition
- The vocabulary word or key concept in a sentence
- Concepts related to the vocabulary word or key concept

The Read About Module focuses on expanding an understanding of the vocabulary words or key concepts across main ideas, details and summary points. T.H.E. P.A.C.T. Curriculum Planning Tools for the Read About Module outline three key formats when providing “reading-to-learn” opportunities. These include accessing more complex content for each word or concept in the formats of:

- Detail bullet points
- Passages

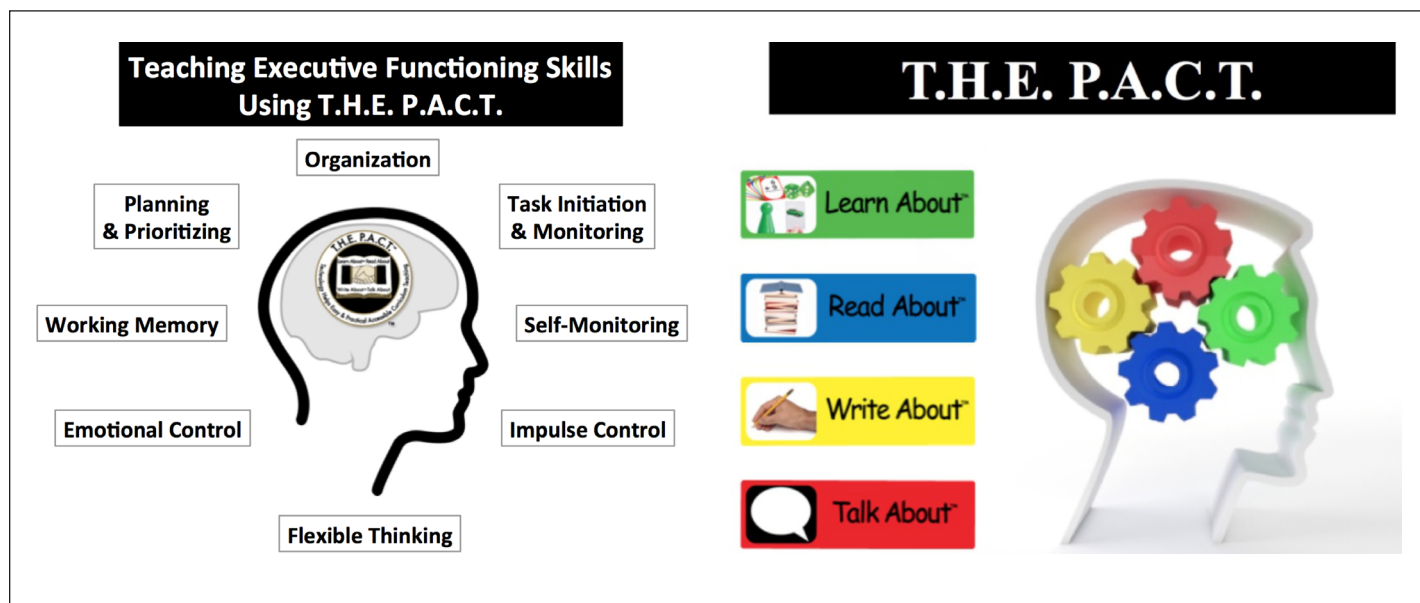


Photo #1: “Knowing what to expect from activities helps children become more confident.” Dr. Peter Gorski, Harvard Medical School

- Question-and-answer study guide sets

In trainings and consultations for T.H.E. P.A.C.T., educators are walked through a series of five basic steps for this process that we wish to share with you.

Once your topic of instruction is identified (in this article, the topic example is executive functioning), simply:

Step 1: Enter the vocabulary words and definitions on the Learn About forms.

Step 2: Enter a passage for each vocabulary word on the Read About forms.

Step 3: Identify three key bullet points in each passage and enter on the Read About forms.

Step 4: Develop each bullet point into a Q & A pair and enter on the Read About forms.

Step 5: Select related concepts and one key sentence in each passage for each vocabulary word and enter on the Learn About forms.

Organization, planning and prioritizing curriculum content are essential. We would like to donate these planning tools to you.

To receive a free copy of T.H.E. P.A.C.T. Curriculum Planning Forms for the Learn About and Read About Modules, please click on the following links:

The Learn About Module: <http://aboutthepact.com/optin-thepact-curriculum-planning-tools-learn-about/>

The Read About Module: <http://aboutthepact.com/optin-thepact-curriculum-planning-tools-read-about/>

BUILDING SOLID WORD KNOWLEDGE OF EXECUTIVE FUNCTIONING SKILLS

For our executive functioning topic, we are sharing a real-life example of a unit that was created for several groups of students with varying abilities. The vocabulary building lessons in the Learn About Module were explicitly taught in classrooms, learning centers, resource rooms and therapy settings. Both print-based and interactive tools were used

for students to learn about key executive functioning concepts related to daily classroom assignments and long-term projects.

Many of the vocabulary lessons for this executive functioning topic were previously used with the students in their academic, life skills and social communication classes, as well. The students were

T.H.E. P.A.C.T.™ Curriculum Planning Tools			
Learn About			
DIRECTIONS: Related to a topic of instruction: select vocabulary words; definitions for each vocabulary word; sentences using each vocabulary word in context; and related concepts each vocabulary word.			
TOPIC OF INSTRUCTION: Executive Functioning Level 1			
Vocabulary Word	Definition	Use in a Sentence	Related Concepts
EXAMPLE	EXAMPLE	EXAMPLE	EXAMPLE
thinking	Using your mind to produce thoughts	You can share what you are thinking in class.	Brain, mind, thoughts, opinion, facts, learn
executive functions	A set of brain-based skills that help you get things done	Executive functions help you with organization, planning, and prioritizing.	command center, organize, plan, remember, prioritize, pay attention, manage
brain	The control center for your body, which is located in your skull, and receives and sends messages to tell your body what to do	Your brain collects information, sorts it out, thinks, and remembers.	skull, think, move, solve problems, organize, plan, focus, messages
organization	Being able to bring order to information, such as key concepts or main ideas, or to your environment and keep track of things	It is important to have organization in your work area.	order, information, environment, keep track, efficient, systemizing, saves time, reduces stress
planning	Creating a roadmap to reach a goal or complete a task	It is important to select the key steps when planning your project.	roadmap, goal, task, strategies, projects, materials, steps, map, brainstorming

Photo #2 Sample Page of T.H.E. P.A.C.T. Curriculum Planning Tools for the Learn About Module

T.H.E. P.A.C.T.™ Curriculum Planning Tools		
Read About		
DIRECTIONS: Related to a topic of instruction: select passage(s) containing each vocabulary word; extract up to 3 detail bullet points for each passage; and list up to 3 study guide question & answer sets for each vocabulary word passage.		
TOPIC OF INSTRUCTION: Executive Functioning Level 1		
Passage	Detail Bullet Points	
Organization is being able to bring order to information, such as key concepts or main ideas, or to your environment and keep track of things. Organization is important because it allows you to perform tasks more efficiently. It helps you find things faster and it permits groups to work together without wasting time. Organization is also important for systemizing information. Good organization saves you time and reduce stress. REMEMBER: It is important to have organization in your work area.	<ul style="list-style-type: none"> ● is being able to bring order to information or to your environment and keep track of things ● is important because it allows you to perform tasks more efficiently ● saves you time and reduce stress 	
Study Guide Question	Study Guide Question	Study Guide Question
What is organization?	Why is organization important?	How can good organization help you?
Study Guide Answer	Study Guide Answer	Study Guide Answer
Organization is being able to bring order to information, such as key concepts or main ideas, or to your environment and keep track of things	Organization is important because it allows you to perform tasks more efficiently.	Good organization save you time and reduce stress.

Photo #3: Sample Page of T.H.E. P.A.C.T. Curriculum Planning Tools for the Read About Module



familiar with the lesson formats and knew what to expect. It offered them a known structure, consistent routine and the predictability that they needed for this new topic of instruction.

The following vocabulary words and key concepts were selected for this introductory level executive functioning topic:

- executive functioning
- brain
- organization
- planning
- prioritizing
- sequence
- project
- main idea
- details
- initiating tasks
- monitoring tasks
- monitoring your brain
- time management
- checklist
- timeline
- brain break

Using the content outlined on T.H.E. P.A.C.T. Curriculum Planning Tools for the Learn About Module for this unit of instruction, we created fun and engaging lessons for the staff members and students! The vocabulary building lessons included the following:

ACTIVITY: MAKE A LEARNING BOARD

- Tools: Green foam board, vocabulary pictures and word cards
- Mini Description: Students are given pictures of the vocabulary words and are taught the meaning of each word as they glue them onto to the Learn About Learning Board project. Once complete, the students identify and label each vocabulary picture with a word card.

ACTIVITY: BUILD A VIDEO PHOTO ALBUM WITH IMAGES

- Tool: Photo album templates in the iPACT App System
- Mini Description: For each vocabulary item in the app activity, students (1)

listen to the vocabulary word; (2) activate the blank image target to listen to the recorded fact and watch a full-screen video related to the vocabulary item; and then (3) add a picture to the album that match the word and video.

ACTIVITY: IDENTIFY WORDS IN A WORD SEARCH

- Tool: Word Game Wizard in Mind Express Software
- Mini Description: Students are (1) presented with a list of vocabulary words on the screen and (2) instructed to search for the vocabulary item in the word search grid, which can be presented at different levels and complexity. Once the item is located, students select the first and last letter of the word to mark it on the word search grid. The definition and related concepts are discussed and reviewed for each vocabulary word in the lesson.

ACTIVITY: CREATE A DICTIONARY AND GLOSSARY

- Tool: Dictionary and Glossary Templates in the iPACT App System
- Mini Description: For each vocabulary item in the app activities, students (1) activate the image target to listen to the recorded vocabulary word and/or watch a full-screen video related to the vocabulary item; (2) listen to the definition and/or word in a sentence; and then (3) enter the vocabulary word in the text box using the keyboard or speech-to-text. Once the dictionary or glossary is completed, the reference tool is reviewed - item by item - as the students use the annotation tools to highlight the vocabulary word and underline key details in the definition.

ACTIVITY: MAKE A COLLAGE BOARD

- Tool: Collage Templates in the iPACT App System
- Mini Description: Using their Learn About Learning Board project as a



Photo #4: Learn About Learning Board, Video Photo Album, Word Search, & Dictionary

reference, students select a certain number of vocabulary items to place on their collage in this app activity. Students (1) select a vocabulary image; (2) add text or a caption from their Learn About Dictionary or Glossary; and (3) add recordings to each vocabulary target on the collage. The option to record and add personalized videos is available.

ACTIVITY: PLAY CLUE WITH VOCABULARY BALLOON MAN

- Tool: Word Game Wizard in Mind Express Software
- Video Link: <https://www.youtube.com/watch?v=fHoBAQEFpEA>
- Mini Description: Students are presented with a clue – with or without a picture support - about each vocabulary word on the screen. Then, they are instructed to identify the vocabulary word, using the blank letter lines as a visual clue for the number of letters in the word, and select the letters using the onscreen keyboard to complete the word.

ACTIVITY: HIGHLIGHT WORDS AND IDENTIFY CONCEPTS IN VIDEOS

- Tool: Notecard Templates in the iPACT App System
- Video Link: <https://www.youtube.com/watch?v=rWpWfgQ8SL0>
- Mini Description: For each vocabulary item in the app activity, students (1) activate the text target to listen to the vocabulary word; (2) highlight the vocabulary word using the highlighter in the annotating toolbar; (3) activate the image target to listen to the recorded vocabulary word and watch a full-screen video related to the vocabulary item; and (4) circle, underline or mark key components of the video when the instructor pauses it. Then, students swipe to view and listen to the definition and related concepts for the vocabulary item.

ACTIVITY: MATCH VOCABULARY TO DEFINITIONS

- Tool: Matching Templates in Mind Express Software
- Mini Description: A list of words and definitions are presented on the screen and the students are instructed to drag or click to match the vocabulary words to the correct definitions.

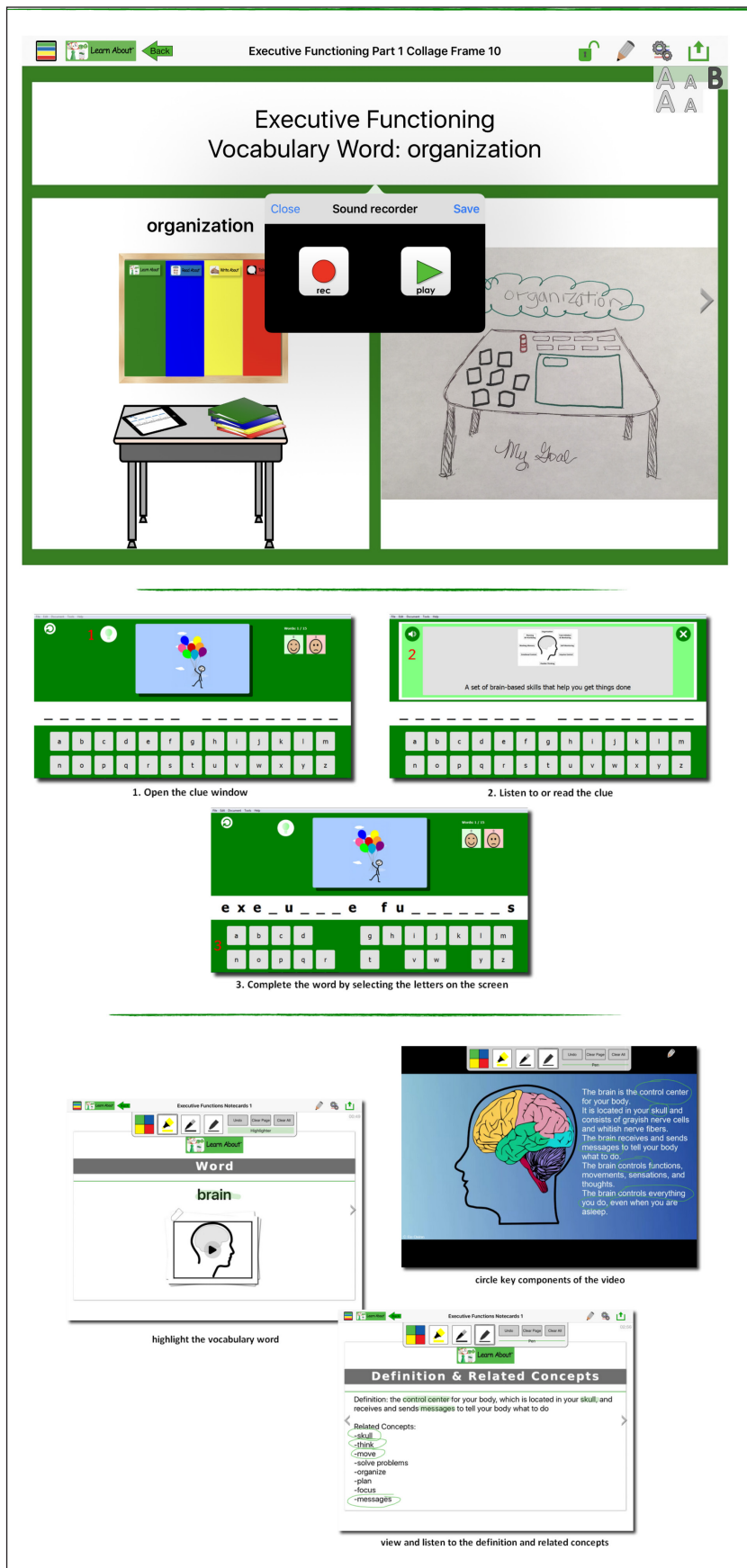


Photo #5: Learn About Collage, Balloon Man, & Video Notecards



ACTIVITY: PLAY VOCABULARY AND DEFINITION BINGO

- Tool: Bingo templates in the iPACT App System
- Mini Description: After given a vocabulary word, related concept or definition, students mark their interactive Bingo board in the app activities to identify the vocabulary concepts.

ACTIVITY: SPIN VOCABULARY OR CLUES AND PLAY A BOARD GAME

- Tools: Spinner templates in the iPACT App System and green foam board game with plastic pouches

- Mini Description: In a turn-taking format, students (1) spin and listen to vocabulary, definitions or context clues using the app activity; (2) find and locate the item on the Learn About Board; and (3) move their game piece to the correct location.

It is important to note that not all of these instructional technology activities were created from scratch. For example, in the iPACT App System, the “cloning” and “converting” features of the app were used to generate activity after activity in less than a minute. In the Mind Express software, the new software “wizards”

cut content creation time by 75%. The teachers reported that their materials prep time significantly reduced and that students of all abilities were highly engaged in these vocabulary-building lessons.

EXPANDING AN UNDERSTANDING OF EXECUTIVE FUNCTIONING SKILLS

The Read About Module lessons expand vocabulary knowledge to more complex text and “dive-in deeper” lessons. In a “connect-the-dots” format, students methodically go through

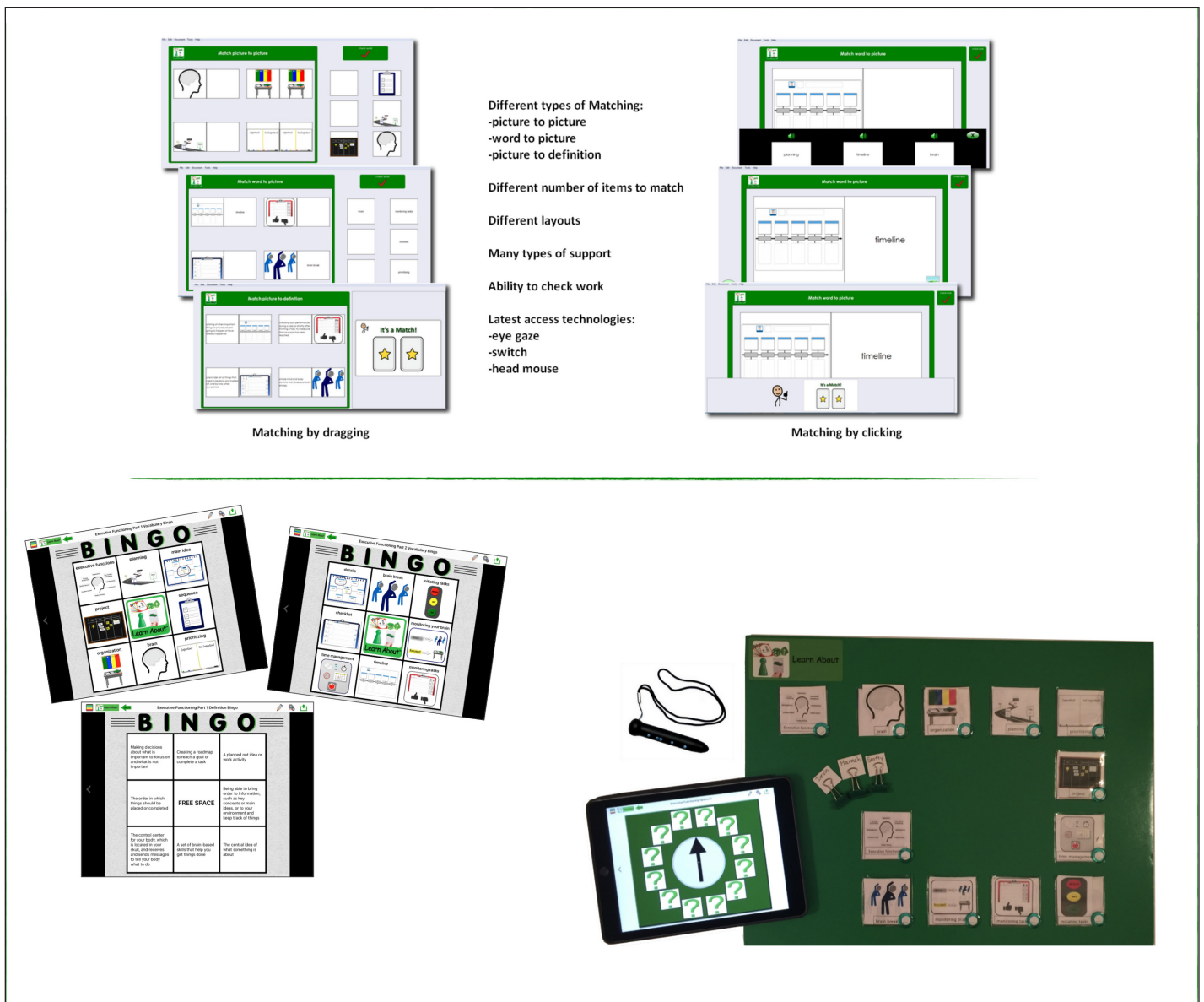


Photo #6 Learn About Matching, Vocabulary & Definition Bingo, & Board Game with Spinner

literacy-based lessons and access informational text to further develop their fundamental knowledge of executive functioning.

Many of the literacy-based lessons for this executive functioning topic were previously used with the students in their academic, life skills and social communication classes, as we mentioned related to the previous module. As stated, the students were familiar with the lessons and knew what to expect.

Using the content outlined on T.H.E. P.A.C.T. Curriculum Planning Tools for the Read About Module for this unit of instruction, a variety of skill-building lessons were developed. The Read About lessons included the following:

ACTIVITY: LISTEN TO VOCABULARY CONCEPT MAPS

- Tools: Concept Map Templates in Mind Express Software and the iPACT App System
- Video Link: <https://www.youtube.com/watch?v=UfkmXYdp820>
- Mini Description: In these app activities, students activate each vocabulary map target to read about key details for each Learn About vocabulary item. In addition, many of the vocabulary items are then expanded into their own unique maps. All details are presented

in a bullet point format to make the most important information salient to the students.

ACTIVITY: REVIEW A STUDY GUIDE

- Tools: Study Guide Spinner templates in the iPACT App System
- Mini Description: In a game-based format, students activate the Study Guide Spinner to listen to question-and-answer pairs. This can be used as a stand-alone instructional lesson or this app activity can be paired with additional literacy-based tools.

ACTIVITY: LISTEN TO A BOOK WITH EMBEDDED STUDY GUIDES

- Tools: Book with Study Guides templates in the iPACT App System
- Video Link: <https://www.youtube.com/watch?v=MOhzbVrkRtM>
- Mini Description: In these app activities, students expand their knowledge and read about their vocabulary words in more complex text. Within the body of the text, students use the annotating tools to highlight, underline and/or circle important information. Comprehension checks – in the form of Question and Answer Sets – are embedded within the books at varying levels to review information in bite-size chunks. Students listen to the

question and corresponding answer to help make the content “stick.” In many cases, an instructional video is launched to further build comprehension of the content. When watching a corresponding video, the instructor pauses the video at key points and uses the annotating tools to point out important details. Students also have the opportunity to annotate on the videos to deepen their understanding.

ACTIVITY: REVIEW A QUICK START GUIDE

- Tool: Beginning, middle and end template in Mind Express Software
- Mini Description: For a quick start guide, students activate or reference the beginning step, middle step and ending step of what needs to be completed to learn a project strategy.

ACTIVITY: PREVIEW A SEQUENCE LIST

- Tools: Sequence list templates in the iPACT App System
- Mini Description: In these app activities, students read about the order and/or sequence of things to further expand their comprehension. Examples of sequence lists include information related to events or projects, “How-To” guides, summary points or procedures. Instructional videos are launched to further build comprehension

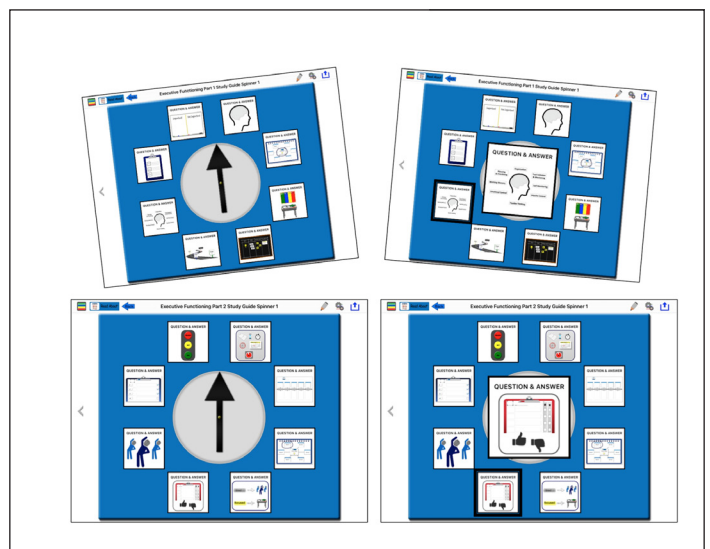
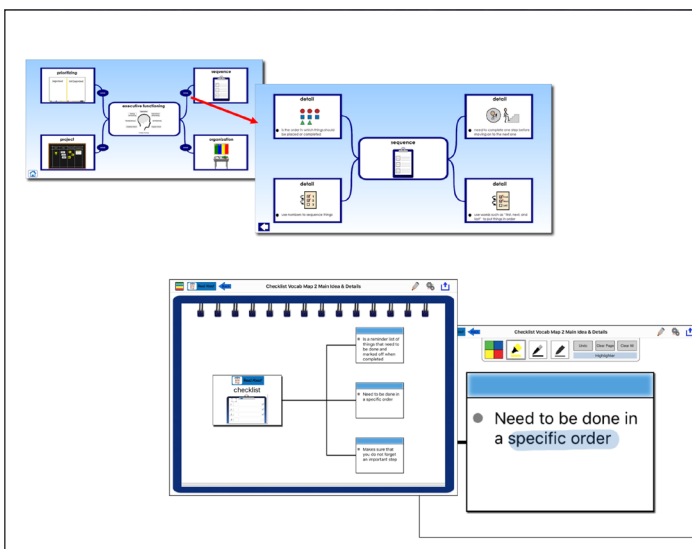


Photo #7 Read About Concept Maps & Study Guide



sion of the sequence. The instructor pauses the video at key points and uses the annotating tools to point out important details. Students also have the opportunity to annotate on the videos to deepen their understanding.

further build comprehension of the timeline. The instructor pauses the video at key points and uses the annotating tools to point out important details. Students also have the opportunity to annotate on the videos to deepen their understanding.

students needed to further expand their knowledge base of executive functioning skills.

ACTIVITY: PREVIEW A TIMELINE

- Tools: Timeline templates in the iPACT App System
- Mini Description: In these app activities, students read about the order and/or sequence of things to further expand their comprehension. Examples of sequence lists include information related to events or projects, "How-To" guides, summary points or procedures. Students read about time-based information, transition words, cohesive ties and force-ordered tasks. Instructional videos are launched to

As previously stated, it is important to note that not all of these instructional technology activities were created from scratch. For example, in the iPACT App System, the "cloning" and "converting" features of the app were used to generate activity after activity in less than a minute. In the Mind Express software, the new software "wizards" cut content creation time by 75%.

The teachers reported that these Read About lessons provided the incremental comprehension building that these

STRUCTURE, ROUTINE, PREDICTABILITY AND KNOWLEDGE THE RESULT OF USING T.H.E. P.A.C.T.

In order for students to be successful in the classroom and effectively use the tools we make available to them, they need to have fundamental word knowledge and word meaning of key executive functioning concepts and tools we give them to help them in the classroom. In addition, it is critical for students to expand their word knowledge in more complex text – using a step-by-step lesson system – to truly deepen their understanding of executive functioning.

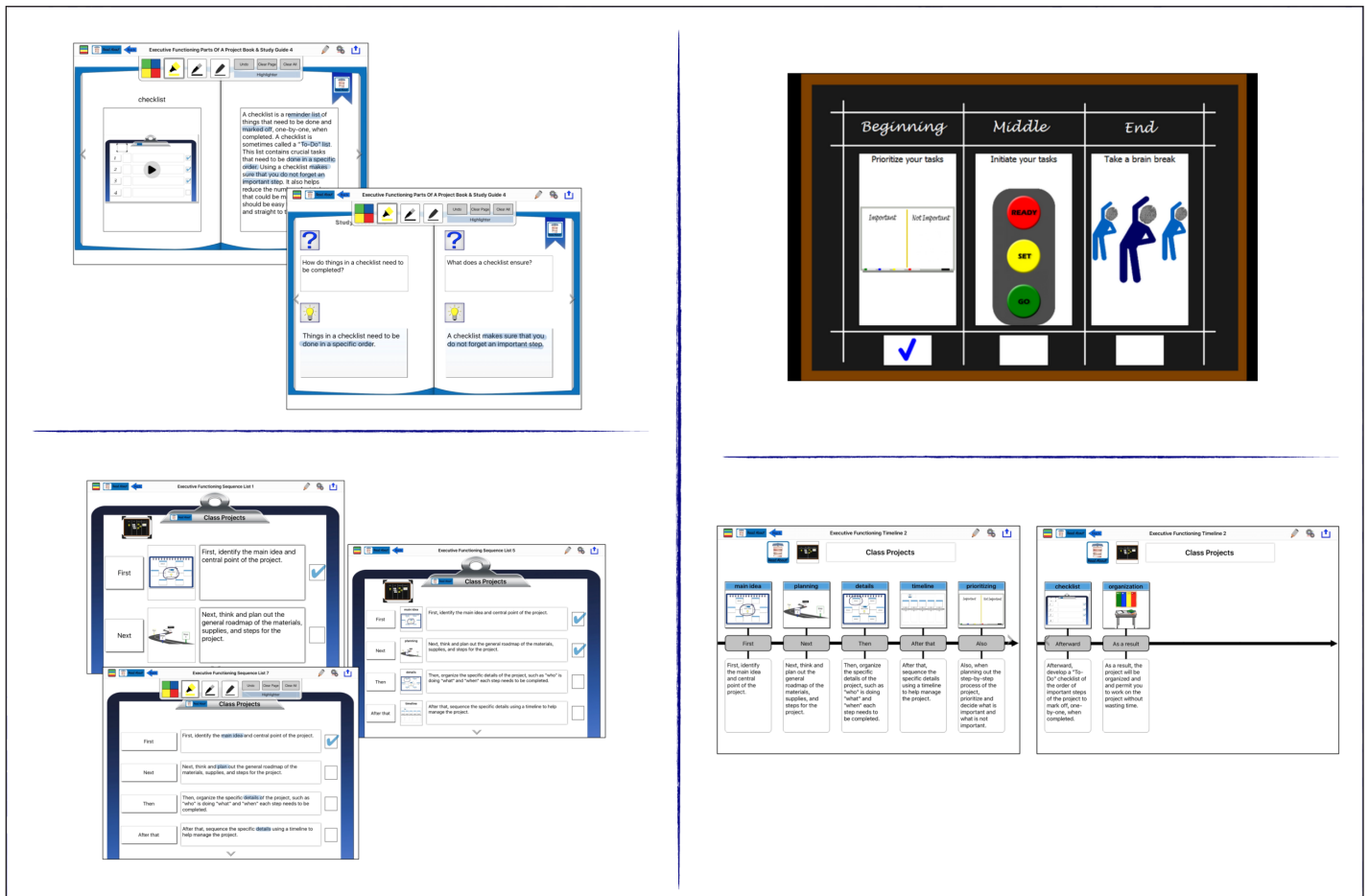


Photo #8 Read About Book & Study Guide, Quick start Guide, Sequence List, & Timeline



Students are able to better plan, organize, remember things, prioritize, pay attention and get started on tasks if explicitly taught how to do so. They will be more successful using the tools we give them if they have a true understanding of what they are, why they are important and how to use them. When increasing their fundamental knowledge of executive functioning skills, students are better prepared to use information, their experiences and the tools we provide them to be more independent in the classroom. As we previously stated, it is impossible to overstate the importance of explicitly teaching executive functioning skills to learners of any ability.

Students with executive functioning issues respond very well to increased structure, routine and predictability in their lives. It is a proven fact. This directly aligns with the foundational principles of T.H.E. P.A.C.T. - consistency and predictability - and why the methodology of T.H.E. P.A.C.T. is so effective as a teaching framework for learners of all abilities, including those with executive functioning issues.

As David Baker, Superintendent of the Windsor Southeast Supervisory Union, states, "T.H.E. P.A.C.T. is simply purposeful teaching. It is the instructional practice that is vital to student success."

RESOURCE INFORMATION:

iPACT App System. Apple App Store. For more information, please go to: www.THEiPACT.com.

Mind Express Software. Jabbla. For more information, please go to: www.jabbla.com.

The Research-Based Teaching Methodology of T.H.E. P.A.C.T. Make A Difference, Inc. For more information, please go to: www.aboutTHEPACT.com.

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