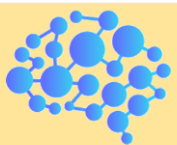




Working memory



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the ability to hold verbal or visual information in mind (short-term memory) and process this to achieve a result (working memory). This includes processing new information and information from long-term memory.

What this looks like:

- Struggles to follow instructions.
- Quickly forgets answers.
- Struggles to blend and segment in phonics and/or complete mental maths due to processing demands.

Accommodations

Using a simple recording device (e.g. Easi Speak; Talking Tiles) to record own thoughts, and play back to write down an answer. Using this enables these two tasks to be broken down and focused on individually.

Principle of "off loading". E.g. using task lists, agenda books / calendars, schedules.

Repetition of Instructions. Use a recording device (e.g. Easi Speak; Talking Tiles) to quickly record a series of instructions which they can play back step-by-step.

Use of visual cues to support instructions and learning. Visuals are stable and don't need to be kept in mind like verbal information / can be easily referred back to.

Being provided with additional time to process verbal information (5 second waiting rule).

Breaking down instructions into smaller chunks to have less information to process at any one time.

Interventions

Verbal rehearsal. Strengthening short-term verbal memory through repeating back verbal information word-for-word e.g. instructions, treasure hunt games, 'echo reading'.

Supporting the CYP to visualise information, thereby offloading from verbal short-term memory. Encouraging drawings or mind-maps can help to start this process.

Supporting the CYP to 'chunk' information and break down tasks for themselves, thereby processing less information at any one time.

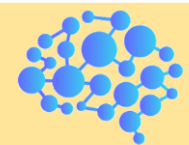
Achieving automation / fluency with key learning facts (e.g. sight word reading, maths facts) to reduce processing demands within novel tasks.

Priming through pre-teaching to develop task understanding and confidence, thereby freeing up processing resources when trying to apply these concepts.

Explore a range of options for reminders (e.g. task lists, word banks, timers), and have them select which ones will help them most within a particular task.



Sustained attention



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the capacity to maintain focus on a task for extended periods of time. Fatigue (e.g. sleep, physical tiredness) limits attentional resources, and interest is a strong mediating factor for attentional capacity.

What this looks like:

- Struggles to maintain attention to finish a task.
- Often appears to drift off task / daydream or forget what they're doing.

Accommodations

Reduce distractions, and refer to Response Inhibition Accommodations and Interventions.

Modify/limit task duration and/or regularly change / rotate tasks to keep pace and attention.

Interspersed short breaks throughout an activity and longer breaks at set times throughout the day. Ensuring that these are unrelated tasks with reduced cognitive demand to enable attention to 'replenish'.

Provide incentives e.g. provide two task targets. When finishing the second target, enable free time on a 'project' activity which can be quickly returned to and continued.

Use sand timers / digital timers as a goal to work towards.

Use high interest materials e.g. incorporating personal interest, using multi-sensory activities.

Use vestibular seating equipment (e.g. wobble cushion), provide short movement breaks and/or bigger movement breaks (e.g. sensory circuits) before an activity.

Interventions

Teach peers coaching strategies to appropriately prompt and support the CYP within lessons.

Regularly engage in mindfulness and/or meditation activities. It's worth noting that those who struggle with this most, would benefit from this most. Starting with minute meditations and building up can be a good help.

Support target setting, and identify something to work towards (i.e. incentivisation).

Teach attentional self-monitoring e.g. self rating of attentional capacity and short term attentional / time goals

Use a silent, vibrating timer (e.g. Gymboss) to prompt every 5 minutes.

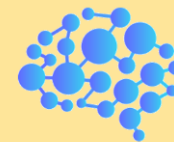
Teach YP how to set up a study plan based on awareness of their attentional profile.

Work with the CYP to make a list of all distractions and find personal solutions to help manage these.

see also 'Smart But Scattered' series



Response inhibition



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the capacity to stop and think before doing something. Resist impulses gives us the time to evaluate a situation before reacting, and helps to maintain focus. Requires attention and effort; both impacted by other factors.

What this looks like:

- Jumps into work before understanding what to do.
- Calls out in class or interrupts, sometimes unrelated.
- Difficulties ignoring distractions around them.

Accommodations

Reduce distractions in their environment e.g. think about seating position to minimise visual and auditory distractions, reduce clutter, their working partners etc.

Have very clear classroom rules which are developed with the child and regularly reviewed. The aim is to have this rule at the forefront of their mind to consciously inhibit a reaction within a specific context.

Prime the child before situations where we see impulsive behaviours. Ideally, role-play what to do in certain situations so this reaction is easier to do in the moment.

Discourage "multi-tasking" which leads to moving back and forth between more than one activity.

Set very clear goals which are broken down into stages. Including motivators and or a 'buddy' to prompt can help to resist impulses. Encouraging self-talk can maintain thoughts on task for longer.

Interventions

Generalise into daily life. Regularly and randomly call out "freeze" and count backwards from "3,2,1..." and/or call out "Red light" to stop and "Green light" to go.

Teach delayed gratification. Offer 'rewards' wherein they can either 1) have something small whenever they choose, or 2) wait and receive something bigger / better. Adapt the size of rewards and time to wait to achieve ~80% success.

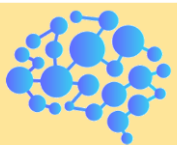
Playing games which include 1) holding back e.g. 'Snap', 'Dobble' 'Simon Says', Musical Statues, 2) stopping and thinking e.g. Connect 4 (or Connect 3), Os & Xs, Jenga, 3) waiting (turn-taking game) e.g. Pop up Pirates, Buckaroo. Plus 'Impulse Control Activities' by T Caselman

Apps for phones / tablets: Impulse Control by Neurogames; Impulse for iPad by EdGE@TERC; Swiperoo App by themascoteers.com; Keezy Drummer by Keezy Corp; Piano Maestro by JoyTunes

Use rewards systems that involve incremental earning of tokens and can be exchanged for rewards from a menu with smaller rewards = less tokens (i.e. token economy)



Flexibility



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: capacity to update our understanding when presented with new information. This can include obstacles, setbacks, mistakes, or simply just a different way of looking at things. Often seen as being adaptable.

- What this looks like:**
- Struggles with creative writing or other open-ended tasks.
 - Gets upset when there are changes in routine.
 - Can appear 'stubborn' as cannot understand alternatives.

Accommodations

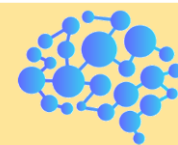
- Reduce novelty and unexpected change. Use visual timetables to clearly show structure of the day, and highlight any changes present.
- Provide notice / warning before transitions e.g. using timers
- Give clear notice / warning of any out-of-routine changes, with time to talk through details of these.
- Clearly show the expected outcome e.g. an example of a completed task, and include examples of steps to achieve this if needing additional support.
- Have clear routines in place for high frequency activities.
- Turn open-ended tasks into close-ended tasks i.e. set clear goals so they know when the task is completed. Staged goals can also be set for longer activities
- Use task boards to make each step in the activity clear and explicit.
- Model and normalise mistakes and errors. Set time for 'upgrading' work as a standard so it can be expected.

Interventions

- Increase tolerance to change through gradual exposure e.g. including short, small changes throughout the day.
- Reduce anxiety around change through pairing change / uncertainty with positive activities e.g. a "?" on visual timetable which is always a fun and enjoyable activity.
- Define and label issue of flexibility e.g. Using a programme like 'Super Flex' to develop self-awareness of when getting stuck on a particular thought.
- Encourage guessing, and have a focus of praise on any such attempts. Refer back / compare final answer to any guesses
- Engage in flexible thinking programmes such as Outside The Box by M Potter, A Week of Switching, Shifting, and Stretching by Kerstein, Flexible Thinking Program by Mullin.
- Give a script to use when feeling uncertain / anxious and wanting to seek clarification.
- Facilitate them to predict what we may find / what may happen in different situations. Encourage to come up with at least two different scenario.



Task initiation



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the ability to understand how to begin a task, and initiate the task without unnecessary delay. Often referred to as procrastination; can often relate to as being impacted by our interest and/or when lacking confidence.

What this looks like:

- Often get into trouble for not doing / starting work
- Leaves homework / assignments to the last minute.
- Struggle to make decisions.

Accommodations

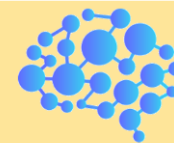
- Provide a highly routinised 'starter' task of low demand to easily initiate an activity.
- Chunk the work into smaller tasks, with clear set goals / task list to see progress and maintain momentum.
- Model and walk them through the first step of a task to build initial momentum.
- Start with a simple activity which reduces perceived task demand, and helps to feel a quick sense of accomplishment
- Establish a set time to complete tasks and/or provide a timer to work on a task for.
- Apps: Lickety Split (Musical Timer to turn tasks into a fun, beat-the-clock game), First Then Visual Schedule (visual timetable creator), Habitica (gamification of habit development)
- Pair with another student with strong initiation skills, who can model and prompt to make a start on activities
- Start homework during school day to enable quicker continuation when at home.

Interventions

- Help the CYP to break down tasks themselves using a task list template.
- Help the CYP select goals of where to get to, and what they can do as a reinforcer / break after this.
- Work with the CYP to develop a consistent homework / study routine.
- Praise and reinforce early task initiation attempts to develop positive association with getting started.
- Consistently Question: What is the first step in this task for you to do?
- Build confidence in the task by helping the CYP to see the progress they've made over time, using Growth Mindset approaches, facilitating them teaching younger students.
- Support them to use a starter timer for tasks which, when they've worked for this time, they can take a break (habit formation to start and initially persevere)



Emotional control



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the ability to recognise and regulate emotions in order to achieve the goal we have set. Heightened emotions take away attention from the task / situation, and focus this on self-preservation.

What this looks like:

- Gets frustrated or shuts down when lacks confidence
- Feels overwhelmed when trying to process too much info
- Quickly reacts to peer disagreements

Accommodations

Reduce or eliminate triggers. After an event, look at what preceded it, and find ways to minimise these in the future (with gradual reintegration in line with skills training).

Intervene early in cycle of escalation, and provide praise or other positive distractions to reduce arousal state.

Give CYP a clear de-escalation script / plan to follow which includes where to go, what to say, and how to reset.

Find ways to build confidence e.g. give answers to task and focus on the process of achieving these, prime break times by pre-negotiating what activities will be played.

Maximise routine and predictability e.g. using clear visual timetables to refer back to for reassurance.

Use Emotion Coaching or similar approaches e.g. Connect, Label ("Name it to Tame it"), Regulate, Problem-solve.

Model how we manage our own emotions, talking aloud how we may be feeling, what we may be thinking, sharing how we self-regulate, and how to overcome challenges.

Interventions

Support CYP to develop self-awareness of difficult situations and their emotions. Develop emotional literacy / vocabulary e.g. Zones of Regulation; Emotionary by C Núñez Pereira, My Book Full of Feelings by A Jaffe, The Mood Cards by A Harrn.

Graded exposure. Use a 1-5 scale for how anxious the situation makes them feel, and plan daily activities at a level 2/3 to gradually desensitise to these contexts.

Development specific skills of how to react to a difficult situation. Including role-play and practicing these skills makes a massive difference to success rates.

Teach diaphragmatic breathing and meditation e.g. YouTube: New Horizon, Mark Connelly, Epworth HealthCare; Book: Mindfulness for Kids by N Kluge; Apps: stopbreathethink.org, smilingmind.com.au, headspace.com

Teach CYP use of positive self-statements e.g. Emotional Freedom Techniques provide a positive distraction accompanied by structured affirmations.



Goal-directed persistence



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the ability to devise a clear goal, plan out the steps to achieve this, and continue to action each step through to goal-completion. Involves maintaining in the face of challenges (e.g. distractions)

What this looks like:

- Starts something without having a clear goal in mind
- Appears “in the moment.” Makes choices about how to spend time based on immediate needs and interests only.

Accommodations

Establish clear end goals with CYP. Give examples of what this will look like for them and how they will know when they've achieved it

Provide a task list which enables a series of smaller goals / achievement points to help CYP feel a regular sense of achievement and success.

Build motivation through using a token economy system, whereby the CYP can build up & collect and increasing amount of tokens which can then be exchanged for a tiered reward (i.e. larger rewards = more tokens) when they want.

Apps can be helpful e.g. [Working4](#)

Help the CYP to understand the clear purpose of the activity, relate it to them personally, and draw upon personal interests to build motivation.

Encourage peer monitoring and expectations by organising group / paired work with a shared goal

Useful to explore sustained attention and planning, alongside looking at motivational factors more broadly.

Interventions

Develop 'Effort Zones', and regularly prompt to reflect whether they are working in their

- 'comfort zone' (i.e. easy and not hard),
- 'learning zone' (i.e. a good level of difficulty, getting 80-90% correct),
- 'challenge zone' (i.e. too difficult and overwhelming)

Use specific targeted praise and rewards systems which have a focus on the CYP's effort and persistence (i.e. rather than the outcome).

Coach them to set themselves task targets which are followed by short breaks. The aim is that they increasingly start to set their own short targets throughout their work over time, and will persist to these points (or beyond).

Give the answer. This provides CYP with a clear end point / goal to work towards, and helps them to focus specifically on the *process of learning* (i.e. how they actually achieve this answer).



Metacognition



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the capacity to take a 'bigger picture' view how we are acting / achieving / performing in pursuit of a goal. This requires self-awareness to reflect, monitor, evaluate and adaptively plan within a task.

What this looks like:

- Struggles with tasks that require analysis
- Has little awareness of the impact of their actions

Accommodations

Model and embed **Planning questions:** Set a goal, plans out stages to achieve this. - Prepares us to learn, speeds up time on task, maintains focus, activates prior knowledge, provides the foundations of long-term memories, integrates previous learning.

Model and embed **Monitoring questions.** Knowing how well we are working towards a goal, and adapting accordingly. - Creates deeper thinking, keeps focus and concentration, increases efficiency on tasks and increases task specific achievement.

Model and embed **Reflecting questions.** Recognising how well we have done in achieving our goal, and thinking about ways we could achieve this better in the future. - Builds self-awareness, develops a sense of growth and increases future motivation, increases efficiency in the future, gives children a 'memory hook'.

Work through some common mistakes, provide feedback on the process of their learning.

Look for 'good mistakes' which are made in learning, and work through these to understand how they came about and what we can learn from them.

Interventions

Help the CYP decide on how their performance will be evaluated (e.g. task outcome, process, creativity, persistence) and the weight of each of these.

Support the CYP to mark / evaluate their own work (or their peers), to identify parts which are good and parts which could be improved.

Monitoring questions:

- 'Is this strategy getting me closer to my goal?' (there must be a goal: metacognition is not possible without one)
- Do I understand the information?
- Do I feel confident that I am doing well? If not, can I change anything I am doing?

Evaluation (a post- task stage) questions:

- 'How well did I do?' (this helps inform 'knowledge of SELF' that is drawn on in future metacognitive planning stages)
- How do I feel that went? Did I achieve the goal?
- How did it compare to similar tasks in the past?
- What could I have done better?

see also 'Smart But Scattered' series



Planning & Prioritisation



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the ability to map out each step needed to reach a goal / complete a task. This involves being able to decide what is or is not important to focus on. Often requires working memory / flexibility.

What this looks like:

- Feeling overwhelmed by tasks as cannot see the steps in achieving goal and/or tries to do everything perfectly.
- Often not having what is needed for a task / activity.

Accommodations

Demonstrate and model what our plans are during a task, and the steps we'll take to achieve this.

Provide a visual task list / flow chart of steps to complete the activity. Helpful to talk through the reasons why we structure the task like this to help the CYP develop a better understanding / template themselves over time.

Provide planning and timer tools e.g. apps such as [Timer+ Touch HD](#), [Working4](#), [CanPlan](#)

Provide explicit instruction which helps the CYP to clearly understand the aims and key information which we're trying to achieve (i.e. remove the needs to infer what the priority information).

Chunk tasks into smaller segments with checkpoints to monitor progress.

Give CYP templates (e.g. writing frames) to consistently structure their work.

Interventions

Teach planning explicitly by explaining what it is, real life examples, and why it is important.

Walk through the task, and ask the CYP to note each step they see in a task (i.e. breaking down steps in tasks).

Use a 'goal setting ladder' whereby: they draw out their final goal at the top, draw down 7 steps, place themselves on the 3rd step, identify what they've already achieved towards this goal (i.e. on 1st and 2nd step), identify what subgoals they need to achieve on each of the next four steps, find solutions and support to help with each step.

Ask questions to get CYP to prioritise e.g. "what do you need to do this?" & "what is most important to start with?"

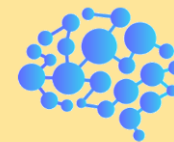
Engage in sequencing activities e.g. cut up comic books / drawing pictures of plans to make their favourite things.

Planning / Goal Setting questions:

- 'What is required?' (knowledge of Task)
- 'Have I done anything like this before?' (knowledge of Self)
- 'How do I achieve the goal?' (knowledge of Strategies)



Organisation



EXECUTIVE FUNCTIONS
Connecting Into Practice

Definition: the ability to develop, plan and action approaches and/or systems to be able to order information and/or resources around us. This can be general (i.e. daily activities), or task specific (i.e. novel activity).

What this looks like:

- Loses things; messy work, backpacks
- Take a very long time to get dressed and other activities
- Constantly restart an activity from the beginning

Accommodations

Create a series of visual checklists for anything which is taking them longer or they're getting confused about e.g. morning / end of day / subject specific routines.

Provide colour coded equipment containers / bags which can store all resources needed for specific activities. This may include duplication of equipment (e.g. pencils) to make each self-contained.

Use a 'first', 'next', 'last' system to break down tasks into more manageable parts with a clear structure.

Use 'Planning and Prioritisation' and 'Time Management' strategies to help accommodate other barriers to organisation.

A daily check-in can help CYP review their timetable and plan for the day before moving on with the rest of the day.

Use a checklist for the last few minutes of each day (or class) to help CYP make sure homework is understood and noted down, materials are tidied away, and they have what they need for the rest of the day / to take home.

Interventions

Coach CYP to walk through their organisational processes, and prompt their individual use until they become a 'habit'. Habits can take weeks or months to form, but then act as a template for other habits to develop.

Look at a choice of organisational system with CYP and help them to choose their favourite / understand what works best for them which they can adapt and take ownership of over time.

Ask CYP to evaluate current organisational systems (e.g. equipment, books etc.) and challenge them to improve these. This could be through group activities to hear and learn from their peers.

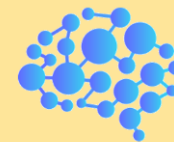
Develop a clear routine / checklist of organisational habits to complete when in certain situations (e.g. what need for the end of the day).

Give an organisational role within class (e.g. hand out and collect books).

see also 'Smart But Scattered' series



Time management



EXECUTIVE FUNCTIONS
Connecting into Practice

Definition: the capacity to judge the passing of time (i.e. chronoception), estimate how much time might be needed to complete individual tasks, and adapt performance speed in response.

What this looks like:

- Struggles to give enough time to complete tasks.
- Is often late for things / others are often waiting for them.
- Often frustrated that haven't or can't finish something.

Accommodations

Have clear schedules for tasks which explicitly show time limits / expectations for each.

Make use of countdown timers wherever possible for tasks to provide a sense of urgency within tasks.

Talk aloud and model own time management e.g. "I want to do x, which will take me about 5 minutes", "If I only have 10 minutes, I can probably get X done in that time"

Work with child to use Pomodoro interval learning method e.g. <https://pomofocus.io>, adjusting the time and interval which best matches the CYP's current capacity (i.e. 90% success rates).

Check-in with CYP to make sure they are on the right track and teach them how to check-in with themselves - "How am I doing? Am I on track?". Using a silent timer to prompt (discussed in Intervention section).

Interventions

Regularly estimate how long it takes to complete something. Note, time and compare predicted time to actual time after to reflect and update understanding.

Use a silent, vibrating timer (e.g. Gymboss) to prompt every 5 minutes. This mainly aims to develop time perception. Develop the habit of marking on the activity where think they can get to in the next 5 minutes.

Make sure they're able to tell the time easily and fluently. Without this, time management techniques are reliant on other prompts.

Prompt to plan out how long several activities may take e.g. over lunch time: eating x minutes, getting ready x minutes, playing football x minutes.

Coach children and young people in following schedules. Teach them how to make checklists for a set of steps or tasks and model it's use and explicitly discuss benefits of using this them.