

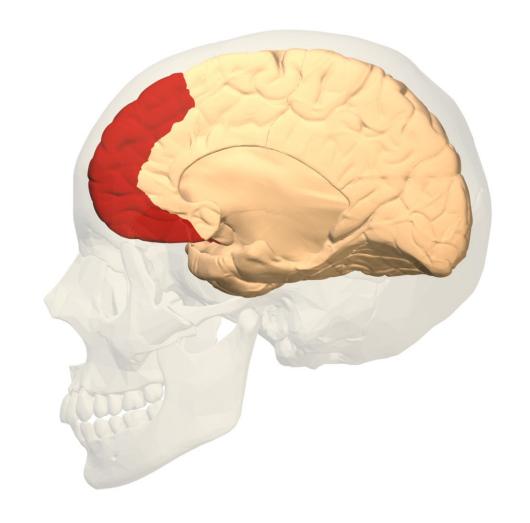


# Executive functions sandbox

**Prof Sara Baker** 

## Executive functions in everyday life

Skills for active learning, adjusting to expectations, being independent, making 'good' decisions

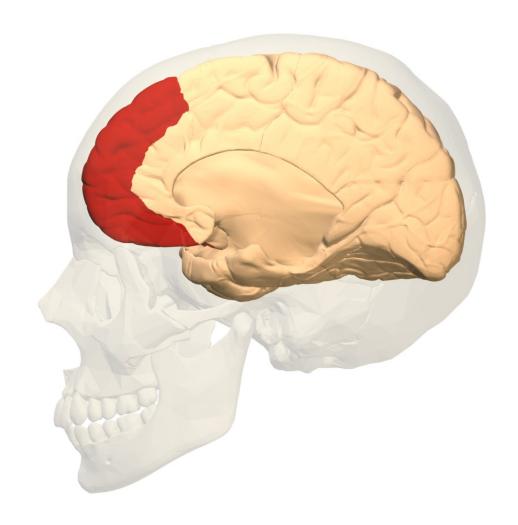


# Check up: Your own executive functions skills

Using the executive functions questionnaire...

What are your executive function superpowers?

Are there any areas that are more difficult for you?



# Myth busting



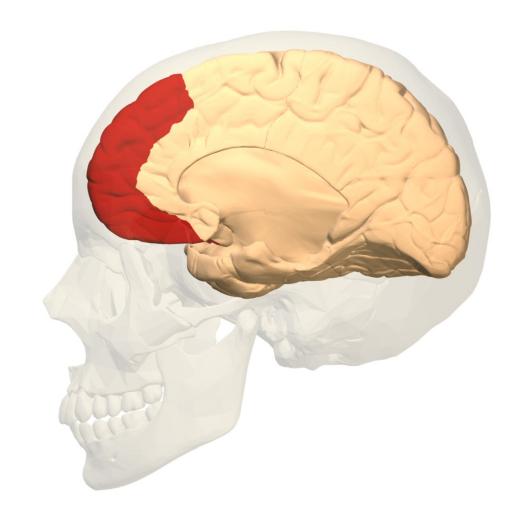
Executive functions matter only for children who are struggling on the fringes.



Executive functions can be trained with 'brain games'.



Once developed, we don't need to focus on executive functions any more.



# Executive functions and self-regulation as a foundation for lifelong learning



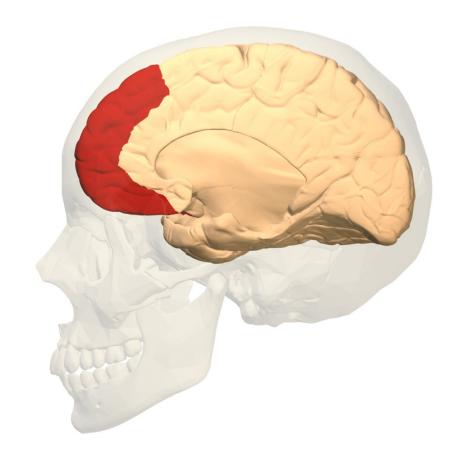
Universal supports can be less stigmatizing and ensure nobody misses out.

## Executive functions and self-regulation

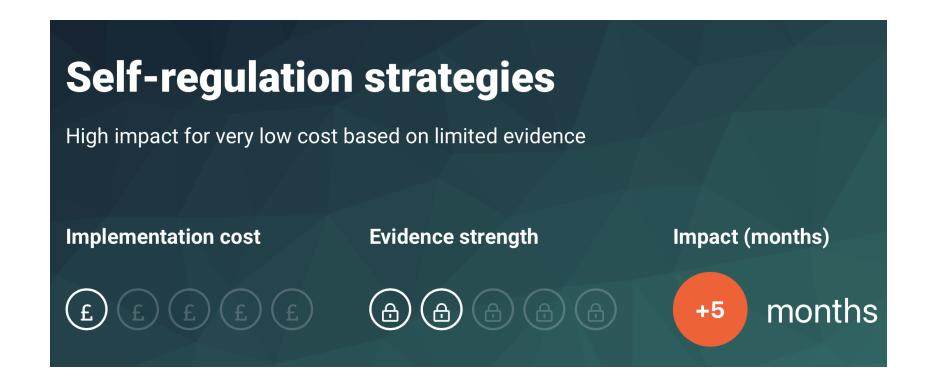
Diverse trajectories of regulation e.g. emotion regulation and the pandemic cohort

Screening tool (Strengths and Difficulties Questionnaire)

- Often has temper tantrums or hot tempers
- Constantly fidgeting or squirming
- Can stop and think things out before acting
- Sees tasks through to the end, good attention span

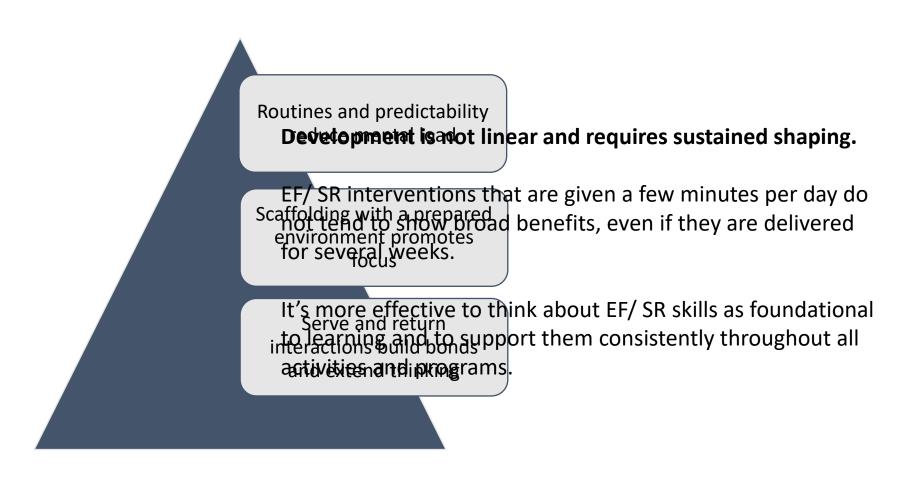


## Executive functions and self-regulation



EEF evidence review

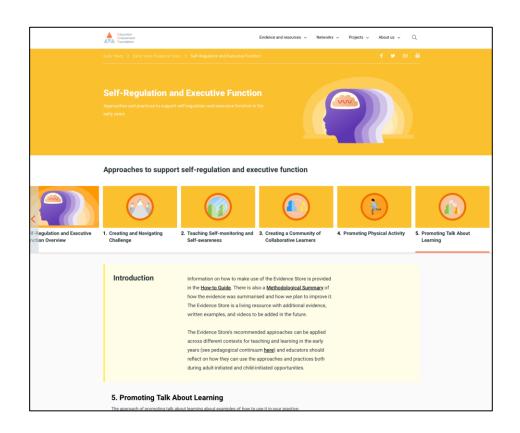
# Many ways to support executive functions and self-regulation



## Supporting executive functions in a classroom

### Video

- Can you identify...
- Goldilocks challenge?
- Meaning for children?
- Thinking about thinking?





# Supporting executive functions in the wider school day

- Room routines
  - E.g. Self-register; visual timetable
- Transitions
  - E.g. through cues like a bell or a song
- Aspects of the environment that scaffold learner's thinking and feelings
  - E.g. posters with emotional expressions

# Home environment, executive functions and self-regulation

Parenting can mediate the effect of external circumstances on children's EF/ SR.

Bidirectional relation between **parents' own EF**, **parental stress** and **parenting style** and children's self-regulation. **Parental views of children's safety** can also affect the opportunities given to children for exercising self-regulation.

### Multiple factors influence a child's development.

For example emotional reactivity may be more pronounced with one adult than another, suggesting children adapt in a very nuanced way. Therefore a single point of intervention is unlikely to bring about holistic changes.



Cambridge Schools Conference, December 2025 Future-ready: preparing learners to thrive

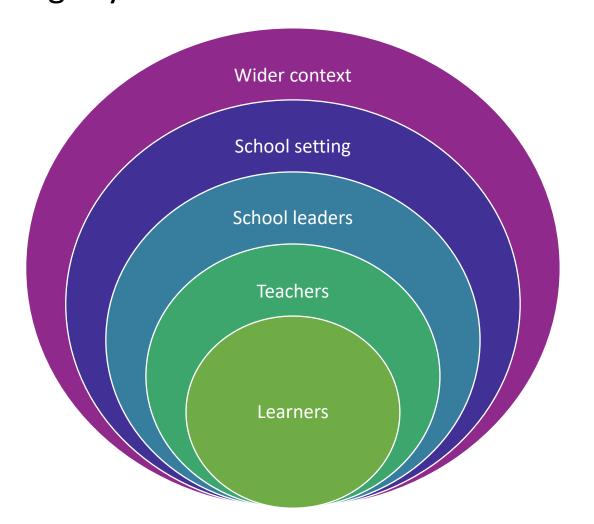
# Expectations about executive functions in different contexts

- What differences in expectations are you aware of in the groups you work with, which may value self-regulation differently at different ages?
- For example are children expected to sleep on their own at a certain age?
- Are children expected to put on their own coat at a certain age?



### Bringing it all together

Can you identify barriers and enablers of executive functions in your context? How might you address those?



### **Teachers and school leaders:**

Time pressures Mindset Own EFs

### **School setting:**

Infrastructure School culture

#### Wider context:

Parenting attitudes and values Policies & law Economic & social conditions

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Future-ready: preparing learners to thrive

## Key take-aways

- EF skills may be at the root of other behaviours. Consider the mechanisms before deciding on the target.
- Gradients in the data suggest everyone can benefit from improving EF and SR. Including adults!
- Multiple factors influence a child's development. Work with parents and community partners, develop a shared language.
- Development is not linear and requires sustained shaping. It's most effective to think about EF skills as foundational to learning and to support them consistently throughout all activities and programs.

### Further resources on executive functions and self-regulation

### Report with overview of the concepts

Executive function mapping project: Untangling the Terms and Skills Related to Executive Function and Self-Regulation in Early Childhood, Stephanie Jones 2019

<u>Podcast with Deborah Leong, developer of Tools of the Mind, explaining self-regulation and executive functions in the early years</u>

https://childinst.org/tools-of-the-mind-with-deborah-leong/

Age-appropriate activity guides from 6 months – 12 years

Center on the Developing Child at Harvard University (2014). Enhancing and Practicing Executive Function Skills with Children from Infancy to Adolescence. Retrieved from <a href="https://www.developingchild.harvard.edu">www.developingchild.harvard.edu</a>

Webinar on self-regulation in the early years with the East London Research School (includes connections to EYFS)

https://www.youtube.com/watch?v=RmcJdaLEr48

Guide from Early Years Library on self-regulation (what is it and how to support it in early years)

https://www.eif.org.uk/resource/early-years-library > see 'Laying the foundations: Supporting children's self-regulation"





Thank you!

You can find me on LinkedIn or during the breaks.

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