

EXECUTIVE FUNCTIONS

MIDDLE/SECONDARY SCHOOL

The Executive Functions (Middle/Secondary School) bundle is filled with research, tools, and information. These tools can either be shared with parents to enhance their knowledge or used by teachers to increase their own confidence and effectiveness in communicating with parents.



DEVELOP YOURSELF

These tools have been designed to facilitate your learning and understanding of the research on music learning and brain development.

Discover practical ways to apply the research directly to your teaching.



SHARE DIRECTLY WITH PARENTS

These tools have been exclusively tailored to be shared directly with parents.

Use these resources as a tool to connect with parents, gain their support for the work that you do and help them understand the powerful benefits of music learning.

WHAT'S INCLUDED?

GET YOUR MESSAGE OUT

Communication Bundle

\$30AUD

8 x Social media ready Quotable Research Cards

1 x Shareable Music Learning Infographic

1 x Shareable Video

- Children are born with a musical talent

4 x News Articles that you can share at the click of a button

1 x Easy to share research Ebook

- 5 ways music learning enhances executive function

SUPERCHARGE YOUR ADVOCACY

Development Bundle

\$50AUD

Includes everything in the "Get your message out" set

PLUS

2 x Professional Readings with Teaching Reflections

- Helping teenagers help themselves with music
- We are built to be changed by experience

2 x Easy to share research summaries

- What connects music learning and executive function?
- Cognitive Enhancements through Music

1 x Shareable Video

- How are music and sport similar?

Which bundle will you choose?

[Click here to add to cart](#)

GET YOUR MESSAGE OUT

COMMUNICATION BUNDLE

8 X SOCIAL MEDIA READY QUOTABLE RESEARCH CARDS

These bite-sized gems of information are tailored to enhance your emails, newsletters, and parent presentations, making it effortless for parents to grasp the advantages of music education.

Easy to add to newsletters, emails and social media

[See full collection](#)



Musicians who maintained at least 10 years of engagement at any time in their life span had better cognitive capacity in advanced age even when controlling for age, intelligence, and education.

Hanne-Ruddy, B., et al. (2019). Recent and past musical activity predicts cognitive aging variability: Direct comparison with general lifestyle activities. *Frontiers in Human Neuroscience*.



“Learning to make music together requires the respect of others and teaches implicit communicative rules and skills.”



Mioduszewska, E.A. & Frost, W.J. (2016). How musical training affects cognitive development: rhythm, reward and other modulating variables. *Frontiers in neuroscience*.

“Both sports and the performing arts provide unique, naturalistic settings that shed light on the importance of skill acquisition on information processing, executive decision making, and strategy utilization”



Tomporowski, P. D., & Passolunghi, C. (2019). Exercise, sports, and performance arts benefit cognition via a common process. *Psychological bulletin*.



Adolescents undertaking in-school music training maintained heightened neural consistency throughout high school.

Tierney, A. T., Kitzman, J., & Kraus, N. (2015). Music training alters the course of adolescent auditory development. *Proceedings of the National Academy of Sciences*.

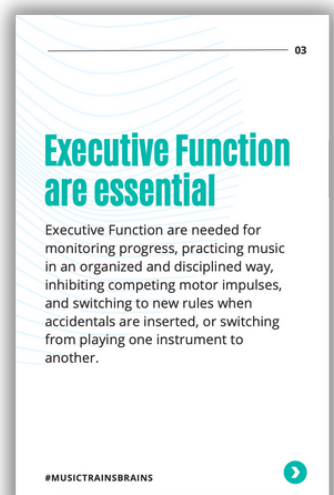
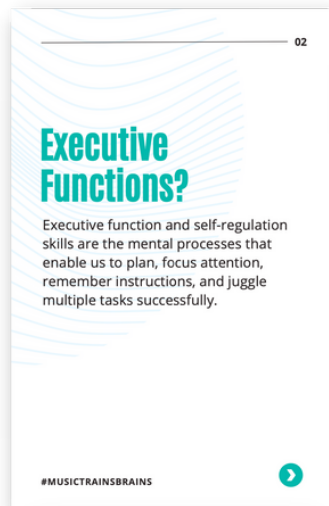
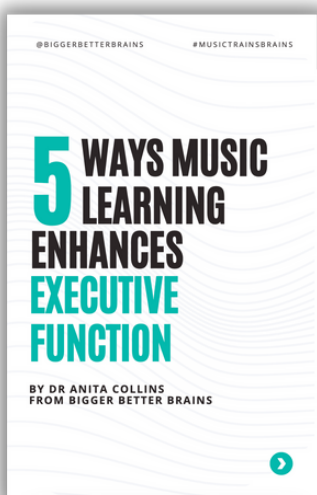


Ready to print and hand out to your community

[Click for more](#)

5 WAYS MUSIC LEARNING ENHANCES EXECUTIVE FUNCTION

Present complex research in a reader-friendly format, helping you grasp the profound connection between music education and brain development.



GET YOUR MESSAGE OUT

COMMUNICATION BUNDLE

1 X SHAREABLE VIDEO

Children are born with a musical talent



Quickly and easily share this video on Facebook

[See full collection](#)

Amplify your program booklet or add into your concert invitation

[Boost your students!](#)

MUSIC LEARNING HELPS INFOGRAPHIC

This research backed infographic has been designed to help your community understand the how music learning can help literacy.



Great for A4 printing

[Click here to add this bundle to your cart](#)

SUPERCHARGE YOUR ADVOCACY

DEVELOPMENT BUNDLE

2 X PROFESSIONAL READINGS WITH TEACHING REFLECTIONS

Authored by Dr. Anita Collins, these professional readings provide a comprehensive analysis of research findings and offer practical strategies for incorporating them into your teaching practices.

Discover how you can apply the research to your teaching

[Click for more](#)

We are built to be changed by experience

Recently I read a phrase in a book that stopped me in my tracks. I read it several times over and it sent my mind racing.

"We are built to be changed by experience"

Why did it send my mind racing? I think it was because I love getting to the heart of an idea. I often find when I write that I use the writing process to think through an idea. If I come to the end of whatever I am writing, a chapter, a professional reading, or an article, or a "zinger" sentence that encapsulates everything I have been trying to say, then my writing works.

We are built to be changed by experience

Professional Reflection • Part 1

Personal Brain Buzz

Describe one aspect of your own music learning in relation to the zinger "We are built to be changed by experience" using these questions - How was I built? What changed in my brain? What experience did I have?

SUPERCHARGE YOUR ADVOCACY

DEVELOPMENT BUNDLE

2 X EASY TO SHARE RESEARCH SUMMARIES

Present complex research in a reader-friendly format, helping you grasp the profound connection between music education and brain development.

Ready to use research - easy to understand format

[Click for more](#)

MUSICAL INGREDIENTS FOR COGNITIVE CHANGE
Ingredients for permanent, positive cognitive change

Music Program Checklist

TIME How much and how often?	NOTATION Do children need to read music?
AGE How old should a child be when they commence and is any age too late?	INSTRUMENTS Does the music learning need to happen through an instrument?
PEDAGOGIES Is one pedagogy the best pedagogy?	EXPERTISE Can anyone teach music?

MUSIC LEARNING HELPS EXECUTIVE FUNCTION

What connects music learning and executive function?

The connections between music learning and the enhancement of executive functions in children continues to be investigated. This area of research is of interest to neuroscientists and psychologists because musically trained children and adults have been found to have enhanced executive function skills including cognitive flexibility, working memory and verbal fluency, and better on behavioural tasks such as verbal fluency, rule task switching, and understanding how music contributes to this enhancement. Improving our overall understanding of these cognitive functions...

Executive functions are defined in the research as "a family of top-down mental processes needed when you have to concentrate and pay attention ... (There are) three core EFs: inhibition (inhibitory control, including self-control (behavioural inhibition) and interference control (selective attention and working memory

AGE
How old should a child be when they commence and is any age too late?

Starting age
A lot of earlier research used music learning as a tool to find what was known as a sensitivity period for cognitive development. The hypothesis was that the first seven years of life was the most important period for cognitive development. This thinking is still applicable but as we learn more about the brain we come back to reliable adage "it just isn't that simple".

Who is the winner
The answer is we don't have enough research to say if one pedagogy is superior to any other. This is because researchers have only recently started to take note of the impact of the specific pedagogy that is used in the research experiment.

EXPERTISE
Can anyone teach music?

Teaching music needs to be sequential, scaffolded and adaptive to the student. In order to teach music in an early childhood setting or on an instrument in a high school, teachers need to have extensive personal experience and have professional learning in how to deliver effective music learning to all students.

Too late to start
Research has been done with 8-10, 10-12, 14-17, 17-25 year olds and every decade beyond 30.

The answer is music learning has been found to positive impact cognitive development, including neuroplasticity, mental stability, physical health and overall brain health.

What is executive function according to the research?

Executive functions are the mental processes that are used to plan, organize, and execute actions. They are the skills that allow us to think flexibly and work with others. Executive functions are the skills that allow us to think flexibly and work with others. Executive functions are the skills that allow us to think flexibly and work with others.

Research considerations

Researching executive function skills is a complex task, due to the large number of subcategories and the way that these skills often overlap. For this reason, researchers often select only two or three skills to investigate in relation to music learning. These studies use a experimental design with two experimental groups: one control group and one music group.

Research has found that music learning:

- Improves student resilience by up to 30%
- Improves emotional stability as a result of advanced executive function
- Promotes independence in learning and the ability to remain on task and work towards set goals

"Researchers have found that 93% of the STEM graduates reported musical training at some point in their lives, as compared to only 34% of average adults."

[Click here to add this bundle to your cart](#)