

Agenda

- What is TCI?
- Why TCI?
- How is TCI **different**?
- Benefits of TCI
- Questions

What is TCI? Targeted Cognitive Intervention

What is TCI?

Computer-based exercises that strengthen specific connections in the

brain

Neuroplasticity in action!

TCI practice © Carroll Schoo ALL RIGHTS RESERVED Train to strengthen specific brain networks Assess to understand the student © Carroll School ALL RIGHTS RESERVED



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Reaction Time Assessment



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Press the spacebar as soon as you see a word on the screen.

Only press the spacebar when the color **matches** the name.

BLUE



Individualized Cognitive Profile



Each program targets a different cognitive capacity and pathway in the brain



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Reaction Time Exercise



Working Memory Exercise







What does a TCI class look like?





Current Educational Challenge

Learning Capacity

Classroom of students of various learning capacities



Current Educational Challenge

Learning Capacity



Deficient

About 20% with language-based learning differences (LBLD)

Standard Lesson Plan

"one size fits all"

Classroom of students of various learning capacities



What do you see?



http://bcove.me/xmat48vd









Developed reading circuit





The reading network



http://bcove.me/xmat48vd







Correlation with academics



Reaction Time



Working Memory



Executive Function



Word Identification & Reading Fluency Reading Comprehension Higher-level skills (e.g. comprehension, writing, number reasoning) Strengthening the Brain's Superhighways



Developed reading circuit





TCI helps develop a "Cognitive Toolbox"





Targeted & Individualized

Assess to understand the student

Train to strengthen specific brain networks



Gym versus Physical Therapy





Specific set of exercises to strengthen a weakness

















Coaching

Providing differentiated instruction and support when needed



Summary



TCI **strengthens connections** between critical brain hubs, thereby improving students' cognitive weaknesses, learning profiles, and academic outcomes

Conclusion

- Individualized & Specific
- Integrative
 - Neuroscientific
 - Data-driven
- Interactive
 - Student-teacher dynamic



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