

Cognitive-Behavioral Interventions to Reduce Problem Behaviors: Three Interventions Across Tiers of Prevention & Intervention

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Advance Organizer

- I. Characteristics of students with behavior problems
- II. Self-regulation (SR)
- III. The SR and Executive Function (EF) Link
- IV. Use of EF based cognitive-behavioral interventions (CBIs) to improve student SR
- V. Examples of EF and SR based CBI approaches at 3 tiers

Typical Students vs. Students with Behavior Problems

Typical Students	Students with Behavior Problems
<ul style="list-style-type: none">• Compare immediate cues to those they are familiar with• Accurately infer what others might be thinking/intending• Generate pro-social alternatives• Perform chosen behavior by recalling task steps and implementing them appropriately	<ul style="list-style-type: none">• Have difficulty interpreting cues / have counterproductive schemas• Concentrate more on hostile or negative cues• Generate fewer pro-social alternatives• Fail to perform pro-social alternatives because of impulsive choices

Dodge & Tomlin (1987); Rubin, Bream, & Rose-Krasnor (1991)

Students with Behavior Problems: Self-Regulation Failure

- Successful accomplishment of developmental tasks requires self-regulation (SR).
- Many students develop patterns of serious and chronic failure to regulate cognition & emotion.
- Poor SR has even been called the “hallmark” of psychopathology!

Self-Regulation Defined

Self-Regulation (SR) refers to a variety of capacities involved in regulating emotion & behavior:

- Delay of gratification
- Inhibition of automatic responses
- Effortful and sustained attention
- Thinking before acting

Classic SR Task



Self-Regulation Skills

Learning to:

- Manage thoughts and emotions
- Inhibit impulsive reactions and use self-talk to guide behavior (Stop & Think!)
- Act responsibly, even when parents or teachers aren't around

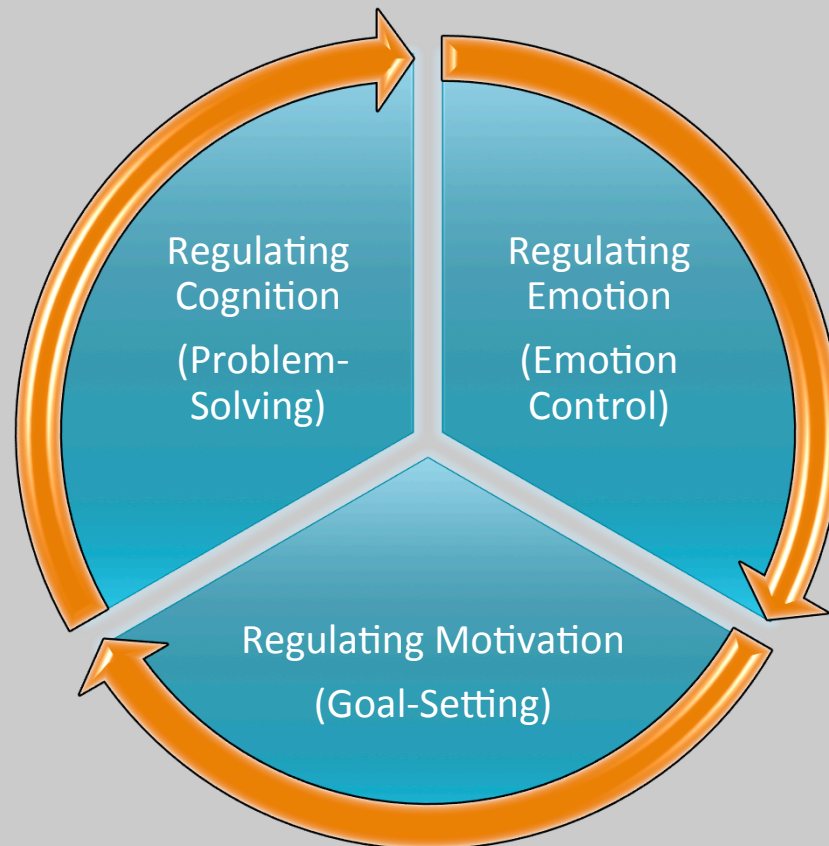
Self-Regulation & Social-Emotional Learning

By teaching SR skills, social-emotional learning (SEL) can be strengthened to help students:

- Achieve success in learning
- Form positive relationships
- Solve everyday problems
- Adapt to changing social & emotional demands

Positive SEL relies on healthy development of neurocognitive & biological factors important for SR.

Three Interconnected Applications of Self-Regulation



Executive Function Defined

Ability to regulate emotion, motivation, and cognition based on neurocognitive capacities:

- *Holding and using* information (Working Memory)
- *Shifting thinking* (Cognitive Flexibility)
- *Stopping* automatic responses (Inhibition)

Collectively referred to as “Executive Functions” (EF)

Miyake et al (2001)

EF at Work

- EF is recruited when situations/stimuli are new or novel. As behavior is learned, EF is no longer necessary.

In US Green Light Crosswalk ➡ Look Left

In UK Green Light Crosswalk ➡ Look Right



- Requires
 - Holding the rule in mind (working memory)
 - Flexible rule use (shift)
 - Inhibition of impulse to look left (impulse control)

SR-EF Connections

- Self-regulatory tasks require the use of EF skills
- Skills necessary for successful SR & social interactions depend on adequate development of EF
- EF development coincides with brain maturation, with preschool and adolescence shown to be “sensitive” periods of growth and reorganization
 - These offer windows of opportunity to intervene

The Importance of Targeting EF and SR

- EF is theoretically linked to SR and amenable to intervention
 - Intervention should target EF and SR to improve students' social-behavioral outcomes
- Students with behavior problems are in need of interventions that target EF and SR:
 - Delayed or insufficient EF maturation is evident in social/behavioral problems of students with behavioral difficulties.

CBIs Target EF and SR

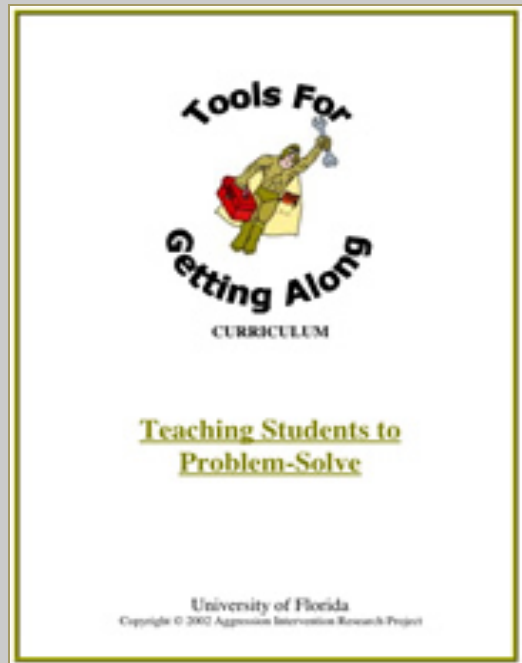
Cognitive-Behavioral Interventions (CBIs):

- The child is the primary change agent.
- Verbalization (self-talk) is the primary component.
- Modeling is a key instructional procedure.
- SR is the focus where students tap underlying EF skills.

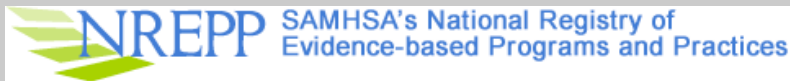
CBI: 3 Tiers of Intervention

- ***Universal*** (Tier 1) preventive interventions:
Provided to all individuals within a certain population, such as all 5th graders in a school
- ***Indicated*** (Tier 2) preventive interventions:
Target high risk individuals, such as aggressive school children
- ***Selected*** (Tier 3) interventions:
Target individuals identified with serious behavior problems

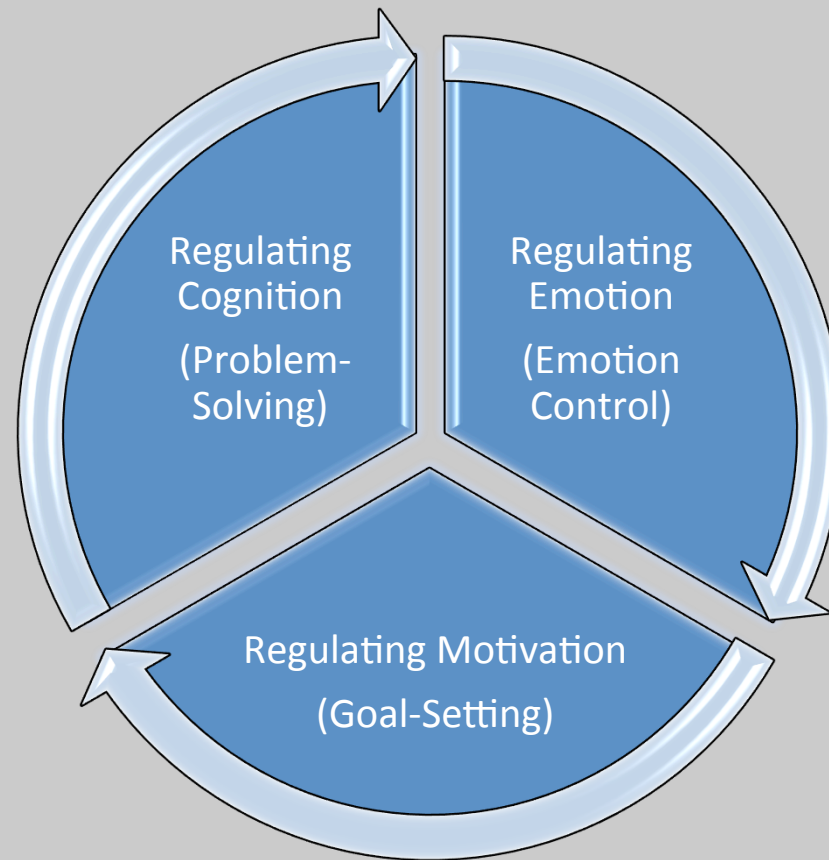
Tools for Getting Along: Tier 1 (Universal) CBI



- Efficacy & Replication (Goal 3) study funded: National Center for Special Education Research, *Institute of Education Sciences*, U.S. Department of Education R324B06029
- Included in the *National Registry of Evidence-based Programs and Practices* & U.S. Department of Education's *What Works Clearinghouse*



Self-Regulation Domains of *Tools for Getting Along*



Tools for Getting Along

Teaching Students to Problem Solve

- To prevent/reduce students' aggressive responses to anger provoking situations using:
 - 6-step social problem-solving framework
 - 21 lesson core curriculum with 6 booster lessons
 - Integrated review, modeling, rehearsal (role-play)

Features

- Paired or small group instructional options
- Tool Kit as a self-monitoring device
- On-the-Spot Assessment to promote generalization

The Problem Solving Steps in TFGA

1 . . .

1. know I'm angry or frustrated.
2. calm down.
3. think about the cause.
4. think about what I could do.
5. try a solution.
6. think about how it turned out.

Findings from an IES Funded RCT

Compared to control students:

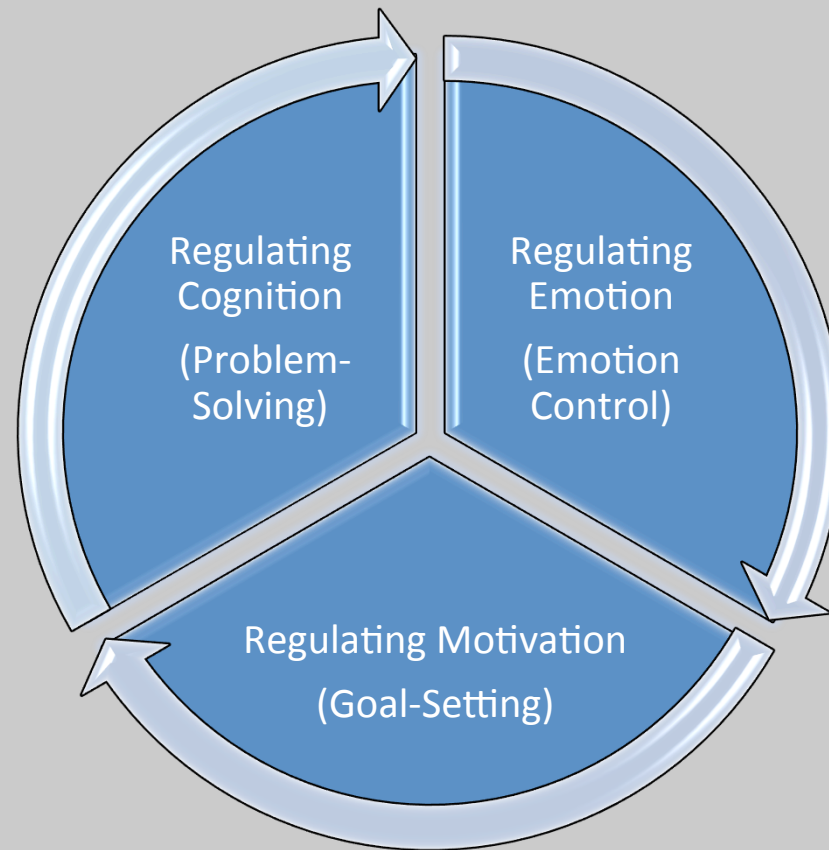
- All students taught TFGA had
 - a more positive approach to problem solving
 - a more rational problem-solving style
- Students with higher baseline risk had
 - better teacher-rated self-regulation
 - lower teacher-rated proactive aggression
 - lower self-reported trait anger and outward expression of anger

Social-Emotional Learning Foundations: Tier 2 (Indicated) CBI



Development &
Innovation (Goal 2)
study funded: National
Center for Special
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*Institute of Education
Sciences, U.S.*
Department of
Education
R324A100020

Self-Regulation Domains of *SELF*



SELF Curriculum Structure

- 51 Kindergarten & 53 1st Grade Lessons
- 5 main K-1 grade units parallel 5 SEL competencies
- Each topic within a unit includes 3 lesson types built around a carefully selected storybook:
 - Whole group interactive storybook reading
 - Small group focused dialogic reading & targeted vocabulary development
 - Small group application activities

SELF Intervention

SELF links SEL and literacy:

- Students engage in structured dialogue about storybook, promoting language development related to emotions & behavior
- Teachers model self-talk related to SR of emotions and behavior and listening/reading comprehension
- Lessons include guided & independent practice of social-emotional learning skills

The Role of Self-Talk in *Project SELF*

SEL: Modeling self-talk helps children...

- monitor and understand their own feelings.
- attend to others' feelings and perspectives.
- understand that actions have consequences & make responsible decisions.

Literacy: Self-talk also helps children...

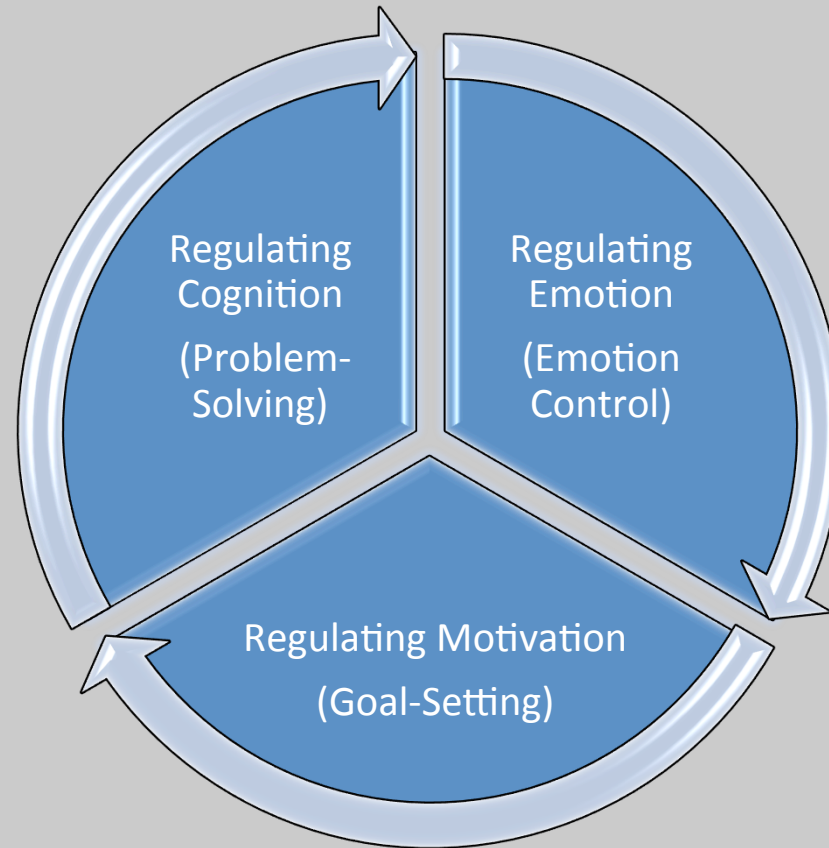
- monitor their understanding of spoken and written language.
- attend to what's happening in a story & anticipate what might happen next.
- connect story narrative to their own experience.

I Control: Tier 3 (Selected) CBI



Development &
Innovation (Goal 2)
study funded: National
Center for Special
Education Research,
*Institute of Education
Sciences, U.S.*
Department of
Education
R324A110182

Self-Regulation Domains of I Control



Purpose of I Control

- To develop an intervention focused on building EF skills for middle school students with EBD
- Combines direct instruction of EF skills (working memory, inhibition, cognitive flexibility) & instruction in contextualized self-regulation (goal setting, emotion regulation, problem solving)

I Control Curriculum Structure

- **U1** - Introduces EF skills
- **U2** - Goal commitment, planning, & completion
- **U3** - Emotion characteristics, thoughts, actions, & consequences
- **U4** - Teaches PS & connects to Units 2 & 3

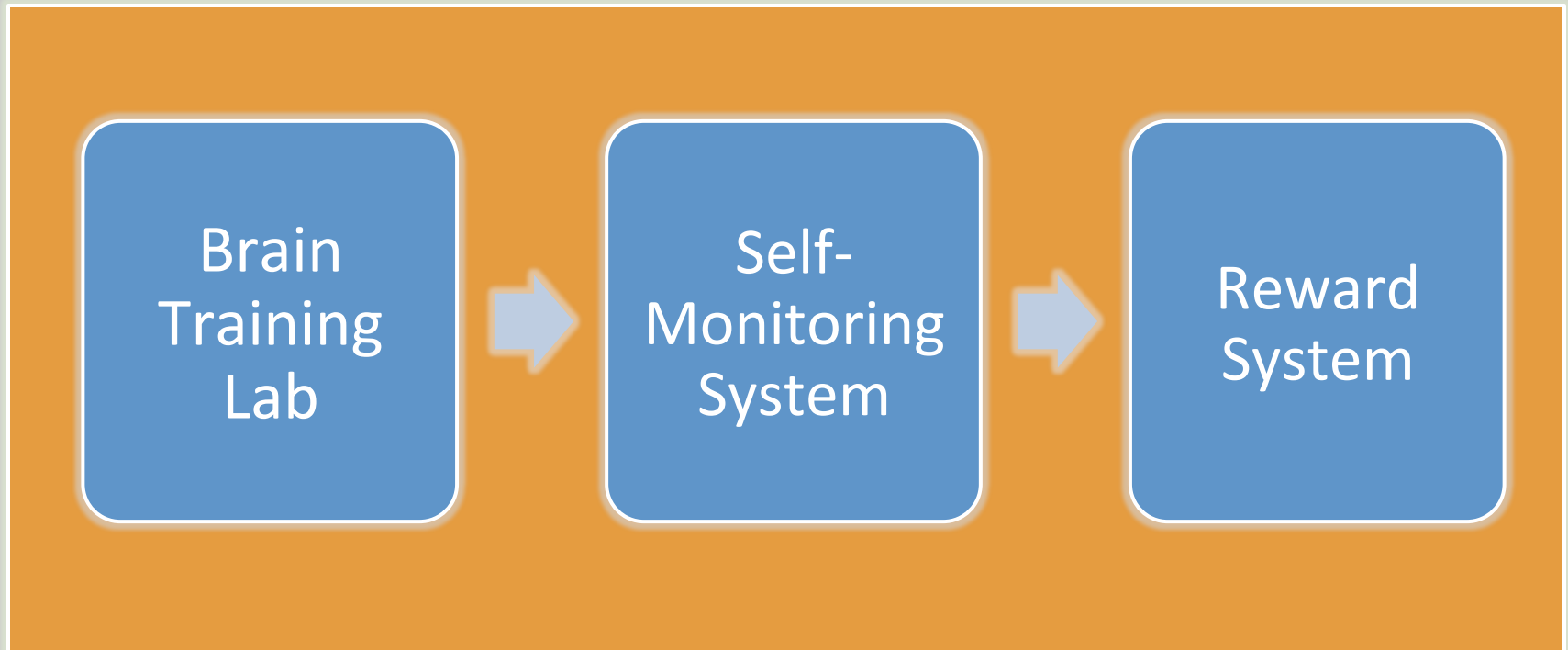
Unit 1
Introduction to
I Control

Unit 2
I Control My Goals

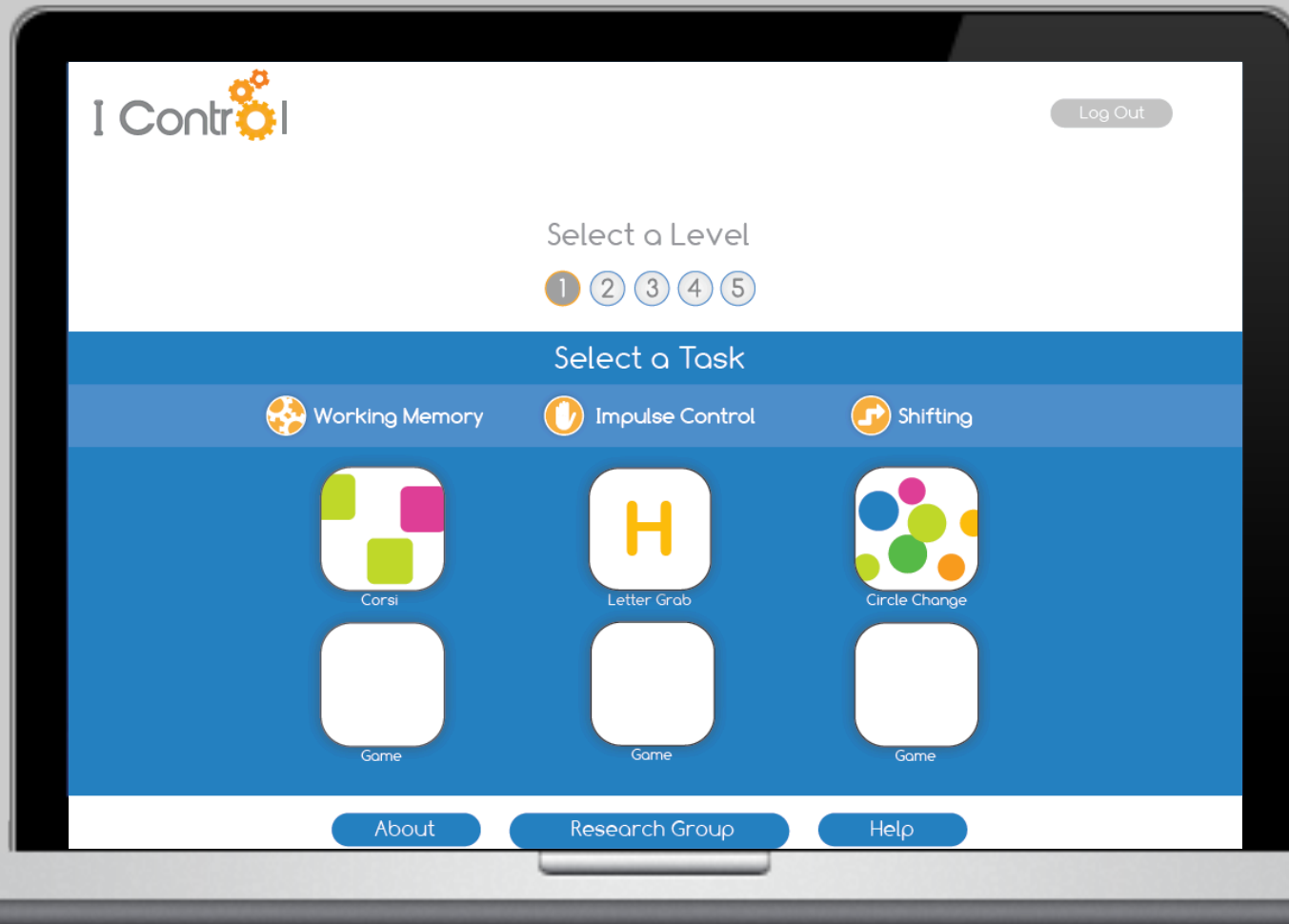
Unit 3
I Control My
Emotions

Unit 4
I Control My Problem
Solving

Brain Training Lab Components



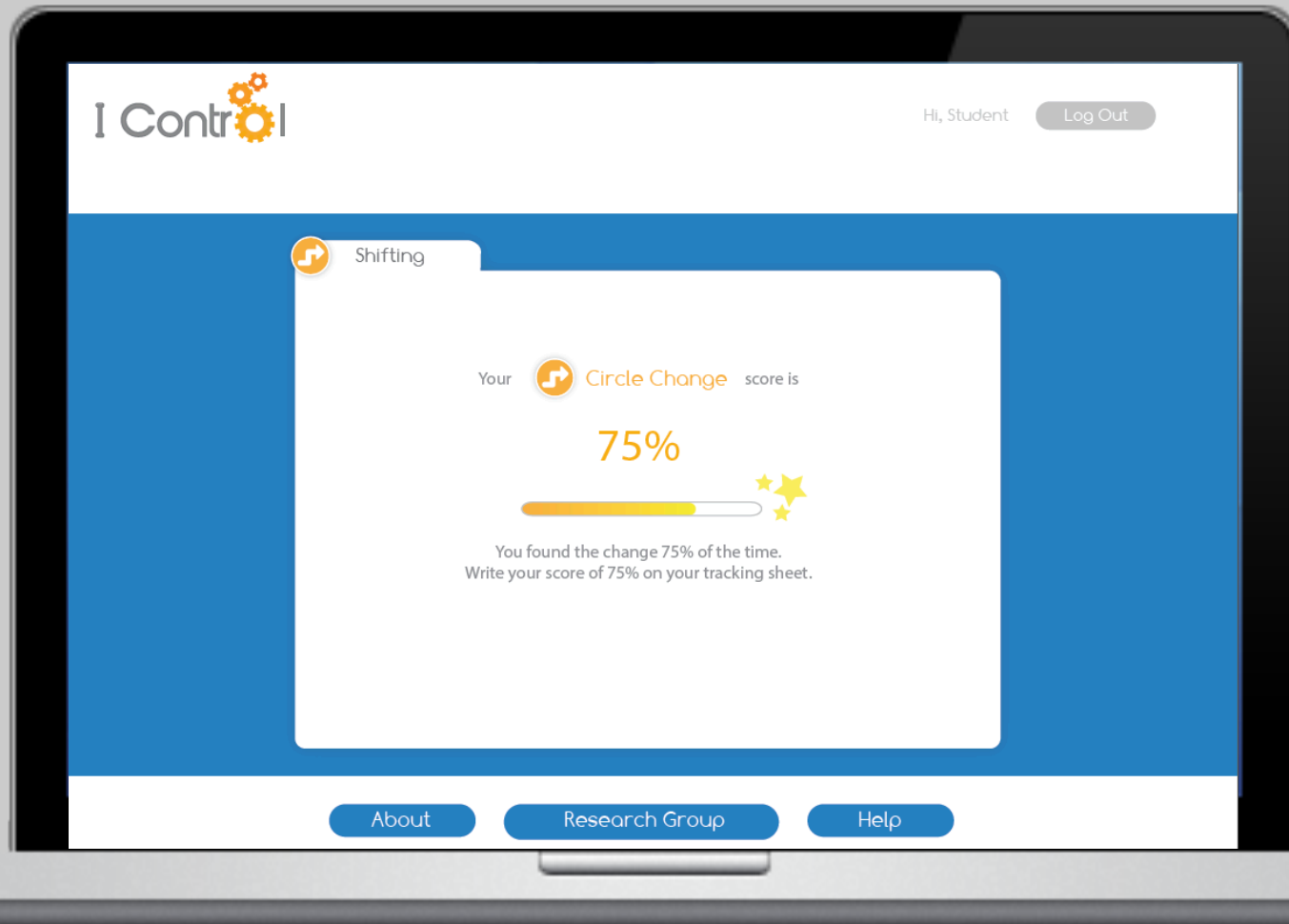
Brain Training Lab



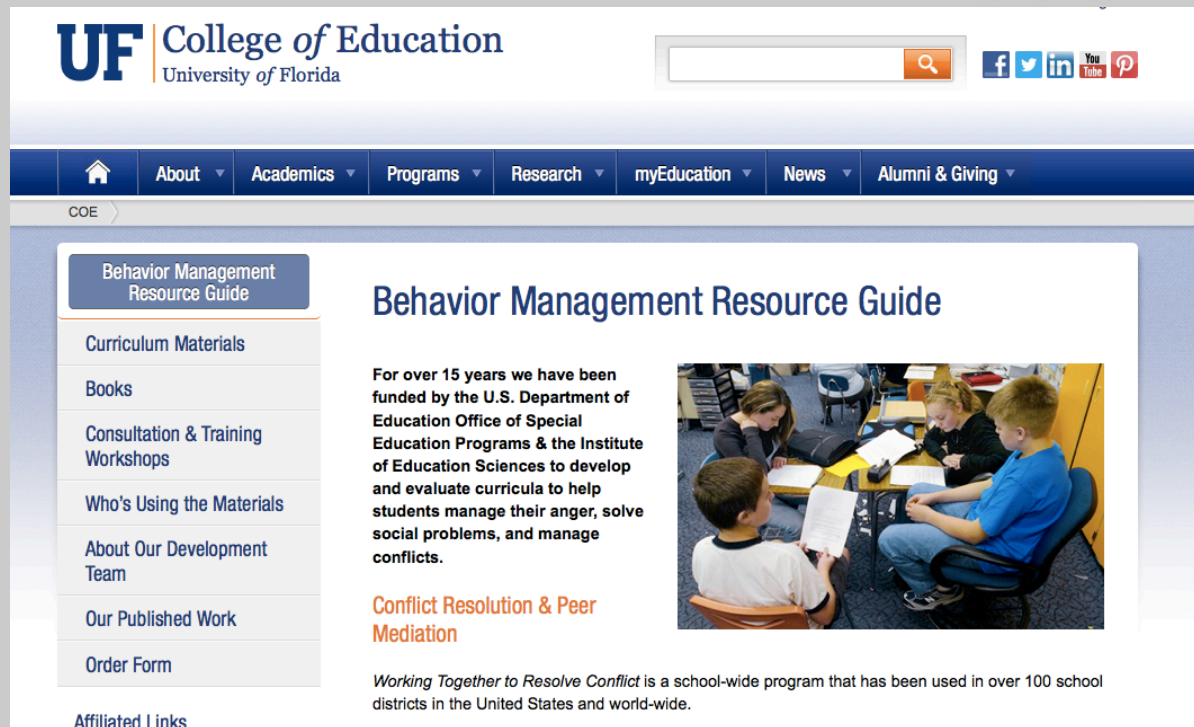
Brain Training Lab



Brain Training Lab



Behavior Management Resource Guide



The screenshot shows the University of Florida College of Education website. The header includes the UF logo, the text "College of Education" and "University of Florida", a search bar, and social media icons for Facebook, Twitter, LinkedIn, YouTube, and Pinterest. A navigation menu contains links for Home, About, Academics, Programs, Research, myEducation, News, and Alumni & Giving. The main content area is titled "Behavior Management Resource Guide" and features a sidebar with links to Curriculum Materials, Books, Consultation & Training Workshops, Who's Using the Materials, About Our Development Team, Our Published Work, and Order Form. The main text describes the program's history and funding, and includes a photo of three students sitting around a table. A link to "Conflict Resolution & Peer Mediation" is highlighted in orange. A paragraph at the bottom states that the program has been used in over 100 school districts.

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Behavior Management Resource Guide

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Behavior Management Resource Guide

For over 15 years we have been funded by the U.S. Department of Education Office of Special Education Programs & the Institute of Education Sciences to develop and evaluate curricula to help students manage their anger, solve social problems, and manage conflicts.

Conflict Resolution & Peer Mediation

Working Together to Resolve Conflict is a school-wide program that has been used in over 100 school districts in the United States and world-wide.



<https://education.ufl.edu/behavior-management-resource-guide/>

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Questions?

Thank you!