

# Enhancing Self-Regulation with Executive Function Skill Training: Development of the *I Control* Curriculum

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## Project Rationale

- Social demands and concomitant decreases in levels of social & emotional support during adolescent’s transition to middle school necessitate explicit intervention to increase the capacity for flexible, appropriate self-regulation in social situations.
- There is growing neurocognitive evidence for the link between the development of self-regulation and executive functioning (EF) - the active, cognitive manipulation and integration of information and the sequencing and monitoring of goal-oriented actions - during this transitional period.
- We developed the *I Control* curriculum to formalize processes that underlie the self-regulation of emotions and behavior for youth with existing difficulties with self-regulation, including those requiring special education services.

## The *I Control* Curriculum

- Year-long intensive program (approx. 80 sessions over 27 weeks)
- Implemented 3x per week (2:1 ratio of lessons to computerized training)
- Lessons progress through skill development in:
  - Goals-Setting
  - Emotion Regulation
  - Problem Solving

## Professional Development

- Initial 2 day in-service training for teachers and paraprofessionals
- Ongoing web-based support via podcasted lesson “job-aids”, Q&A/community forum, & instructional videos for activities

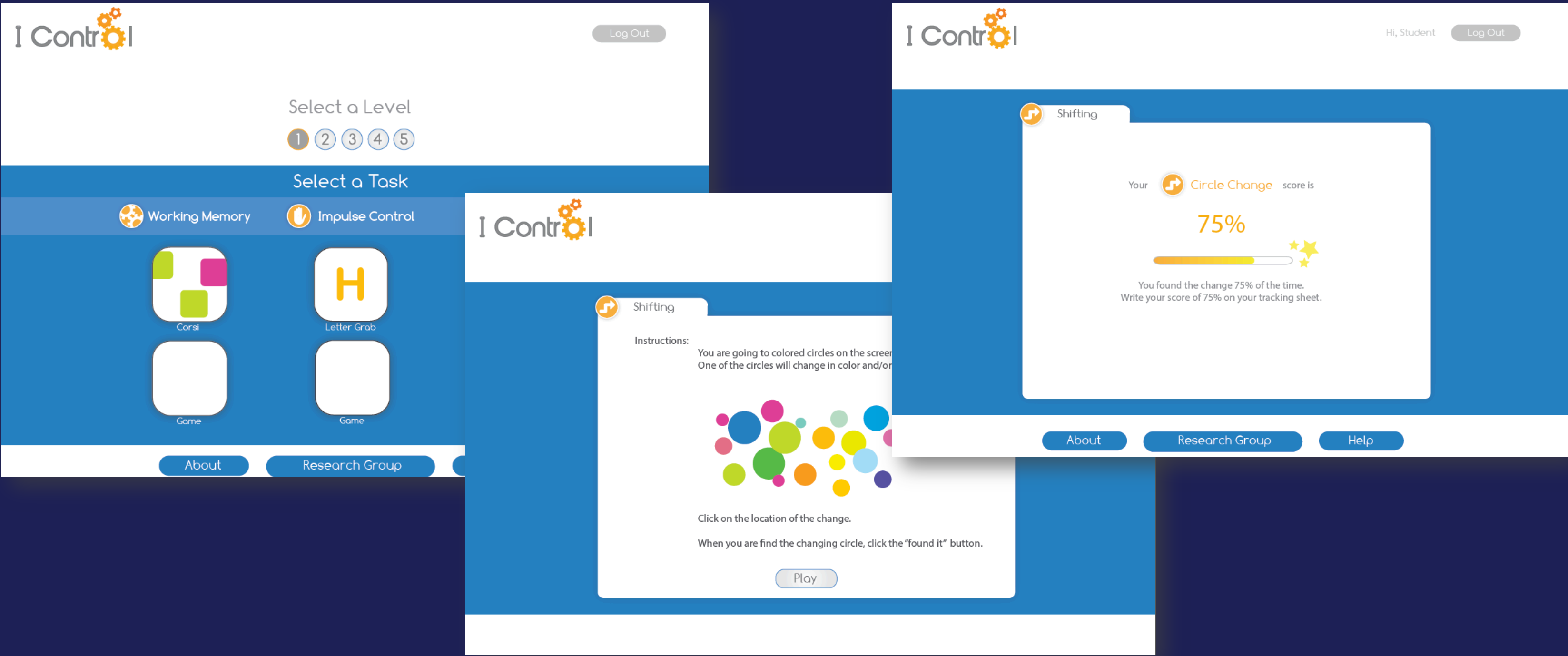


## Theory of Change



## *I Control* Brain Training Lab

An additional weekly 30-minute session involves self-guided, computerized direct training of executive function skills via a “gaming” regimen combined with self-monitoring.



## Year 3 Pilot Study

|   | Year 1 Fall | Year 1 Spring | Year 2 Fall | Year 2 Spring | Year 3 (All Year) |
|---|-------------|---------------|-------------|---------------|-------------------|
| Develop & implement Unit 1-2 lessons & PD (3 classrooms)                            |             |               |             |               |                   |
| Pre-pilot Unit 1-2 lessons (6 classrooms)   |             |               |             |               |                   |
| Develop & implement Unit 3-4 lessons (6 classrooms)                                 |             |               |             |               |                   |
| Pilot <i>I Control</i> lessons & training (6 new classrooms & 6 control classrooms) |             |               |             |               |                   |
| Assess fidelity & revise lessons & PD   |             |               |             |               |                   |

### Setting

Twelve racially and socioeconomically diverse classrooms in North Central Florida (6 treatment and 6 control)

### Sample

Approx. 90 students ages 12-16 with identified emotional and behavioral problems requiring individualized and/or intensive intervention and supports

### Measures for Pre-Post Comparison

#### Executive Function & Self-Regulation

- NIH Toolbox computerized versions of the *Dimensional Change Card Sort (DCCS)* (Zelazo, 2006), *List Sorting Working Memory Test*, and the *Flanker Inhibitory Control and Attention Test* (see Weintraub et al., 2013 for descriptions)
- Behavior Rating Inventory of Executive Function Teacher-and Student-Forms (BRIEF)* (Gioia, Isquith, Guy, & Kenworthy, 2003)
- Self-Regulation Questionnaire (SRQ)* (Brown, Miller, & Lawendowski, 1999)

#### Social, Emotional, & Academic Outcomes

- Clinical Assessment of Behavior (CAB)* (Bracken & Keith, 2004)
- Social Cognitive Skills Test (SCST)* (van Manen, 2006)
- Social Skills Rating System* (Gresham & Elliott, 1990)
- Academic Performance Rating Scale* (DuPaul, Rapport, & Perriello, 1991)