

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

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Year 3 Pilot Study

Year 1

Spring

Year 2

Fall

Year 3

(All Year)

Year 2

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 goaloriented 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.

Unit 1

Introduction to

I Control

Unit 2

I Control My Goals

Unit 3

I Control My Emotions

Unit 4

Solving

I Control My Problem

- 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

Proximal Outcomes l Contro

Instruction in Self -**Regulation Domains**

Goal Setting

- Goal Planning
- Initiation and motivation Goal Monitoring

- Emotion Control Strategies

Problem Solving

- Definition
- Solution Generation and

Distal Outcomes

Social-Emotional Competence

Better Social Relationships

- Teacher
- Peer

Improved Social Cognition

- Unbiased attributions
- Realistic outcome expectations

Increased Pro Social Behavior

- Planning strategies
- Self-management

Decreased Anti Social Behavior

- Aggression
- Self-destructive behavior

Sample

Year 1

Fall

Develop & implement Unit

Pre-pilot Unit 1-2 lessons

Develop & implement Unit

Pilot I Control lessons &

& 6 control classrooms)

Assess fidelity & revise

training (6 new classrooms

1-2 lessons & PD

(3 classrooms)

(6 classrooms)

3-4 lessons

(6 classrooms)

lessons & PD

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

Setting

Twelve racially and socioeconomically diverse classrooms

in North Central Florida (6 treatment and 6 control)

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)

Theory of Change

Direct Training of

Impulse Control

• Inhibition of impulsive responses

Executive Function

Working Memory

Hold and use information

Cognitive Flexibility

Rule selection and shift strategies

Emotion Regulation Emotional Awareness

- Problem Recognition and
- Evaluation

Ongoing Professional Development

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.

