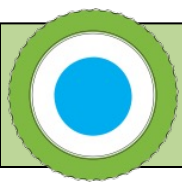


# Enhancing Executive Functioning with Interventions for Elementary Students with ASD/ADHD



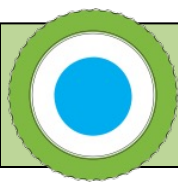


# Today's Plan

Goal: To discuss multiple methods of intervention for EF skill development using the Unstuck and On Target curricula

Plan

- Introduction – What is EF and why is it important



# Disclosures

The work being presented today was partially funded through a Patient-Centered Outcomes Research Institute (PCORI) Dissemination and Implementation Award (DI-2019C2-17605).

The statements and opinions in these presentations are solely the responsibility of the authors and do not necessarily represent the views of the Patient-Centered Outcomes Research Institute (PCORI), its Board of Governors or Methodology Committee.



# What are Executive Function Skills?



# Types of EF challenges

- Trouble transitioning or not getting started on something they don't want to do
- Not staying calm when facing challenges
- Inflexible thinking
- Poor problem-solving
- Difficulty accepting feedback and criticism
- Shutting down when something is challenging
- Difficulty keeping track of belongings or assignments



# Why are Executive Functions important?

Executive Functioning problems are common in neurodivergent individuals (Craig et. al., 2015).

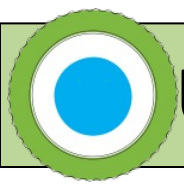
- as environmental expectations increase over time, more support and training are needed.

EFs are pivotal treatment targets and have been linked to functional outcomes:

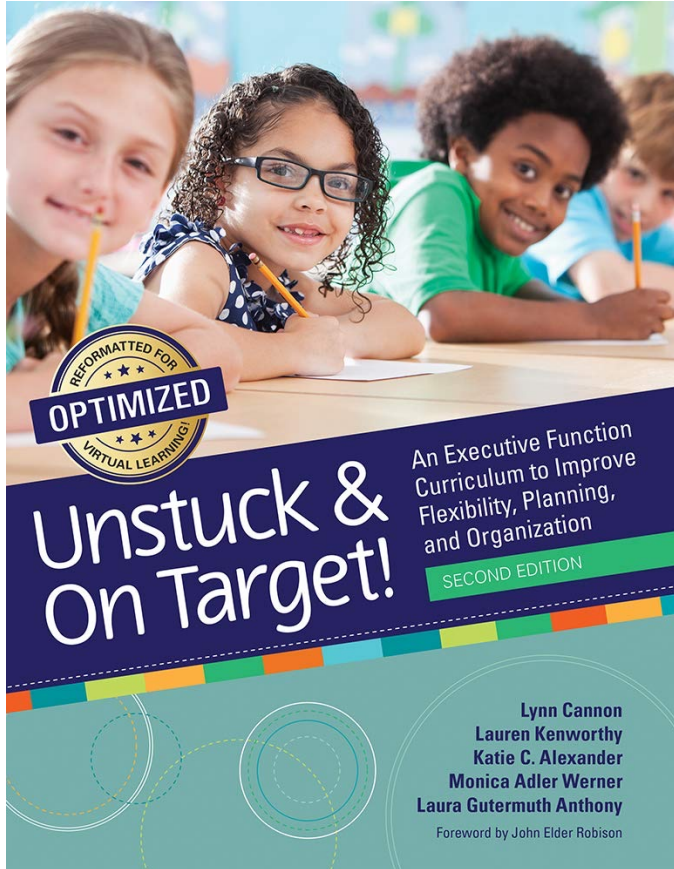
- Learning and academic skills (Pellicano et. al., 2017; St. John et. al., 2018)
- self-determination (Pugliese et. al., 2016)
- adaptive skills (Wallace et. al, 2016; Pugliese et. al., 2016; Gardiner et. al., 2018)
- Mental Health (Snyder et. al., 2015)
- Responsive to treatment (Kenworthy et al., 2014)

School is a primary service access point





# Unstuck and On Target! addresses EF challenges



## Unstuck and On Target

#1 Foundational Skills

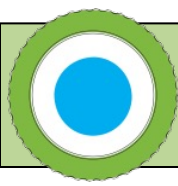
#2 What is Flexibility

#3 How to be Flexible

#4 Why be Flexible

#5 Your Goals: Getting what you want

#6 Flexible, Goal-Directed Futures



# Self regulatory scripts

Flexible

- Great job being flexible

Unstuck

- I'm getting stuck on \_\_\_\_, how can I get unstuck?

Compromise

- Let's compromise so we both get some of what we want

Plan A/Plan B

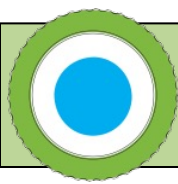
- What is our plan?
- What is our Plan B?

Big Deal/Little Deal

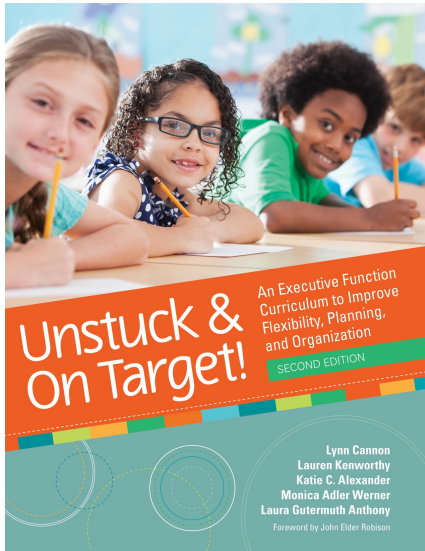
- How can we make this big deal into a little deal?

Goal-Why-Plan-Do-Check





# Spiraling Executive Function Curricula

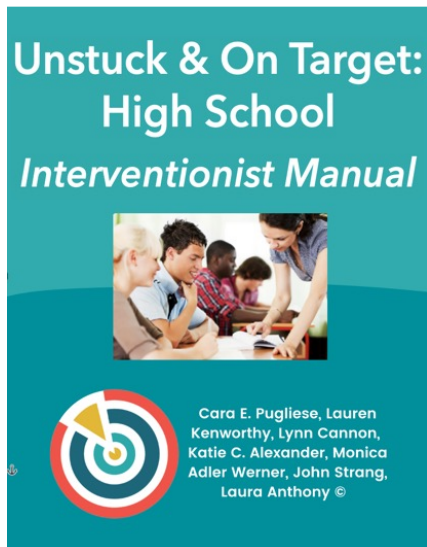
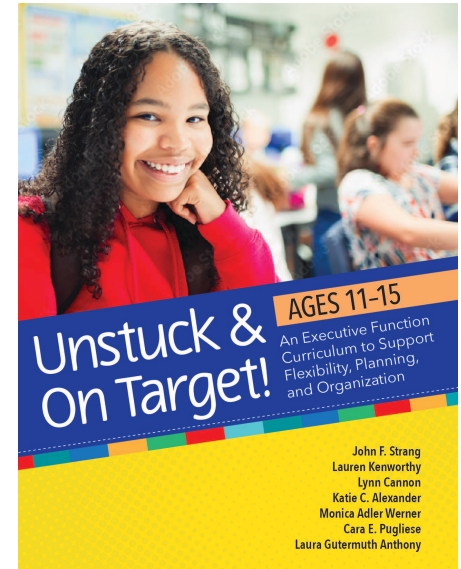


Age 3-6: Unstuck song, story books, activities

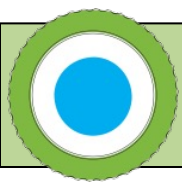
Age 7-11: Fun games, experiments

Age 11-15: Planning fun activities, building power

Age 15-20: Understanding your strengths and challenges, self advocacy



Understand, Support, Teach  
Strengths-Based  
Emotion recognition and coping  
Common self-regulatory  
vocabulary



# Additional Unstuck materials



©Brookes Publishing, 2014



Welcome back, Kelly Sunshine

[Log Out](#)

[MY DASHBOARD](#)

[BINDER](#)



Introduction



Executive Function Overview



Can't, Not Won't



Accommodate



Motivate



Words That Build Flexibility



Identifying Feelings



Coping Strategies



Goal, Why, Plan, Do, Check



Integration

## CAN'T, NOT WON'T

Learn how to recognize situations where your child can't respond as typically expected.

[Replay](#)

### Quick Review:



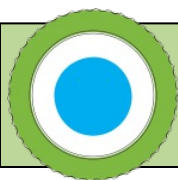
["Why Your Child Can't" Printable](#)



[Understanding Can't, Not Won't Thinking Printable](#)



[Expert Insight](#)



# Evidence (trials)

- Trial 1 (NIMH R34) – Pilot Randomized effectiveness trial comparing Unstuck to a social skills Intervention



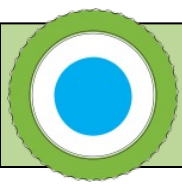
## Randomized controlled effectiveness trial of executive function intervention for children on the autism spectrum

**Lauren Kenworthy,<sup>1,2,\*</sup> Laura Gutermuth Anthony,<sup>1,2,\*</sup> Daniel Q. Naiman,<sup>3</sup> Lynn Cannon,<sup>4</sup> Meagan C. Wills,<sup>1</sup> Caroline Luong-Tran,<sup>1</sup> Monica Adler Werner,<sup>4</sup> Katie C. Alexander,<sup>4</sup> John Strang,<sup>1,2</sup> Elgiz Bal,<sup>1</sup> Jennifer L. Sokoloff,<sup>1</sup> and Gregory L. Wallace<sup>5</sup>**

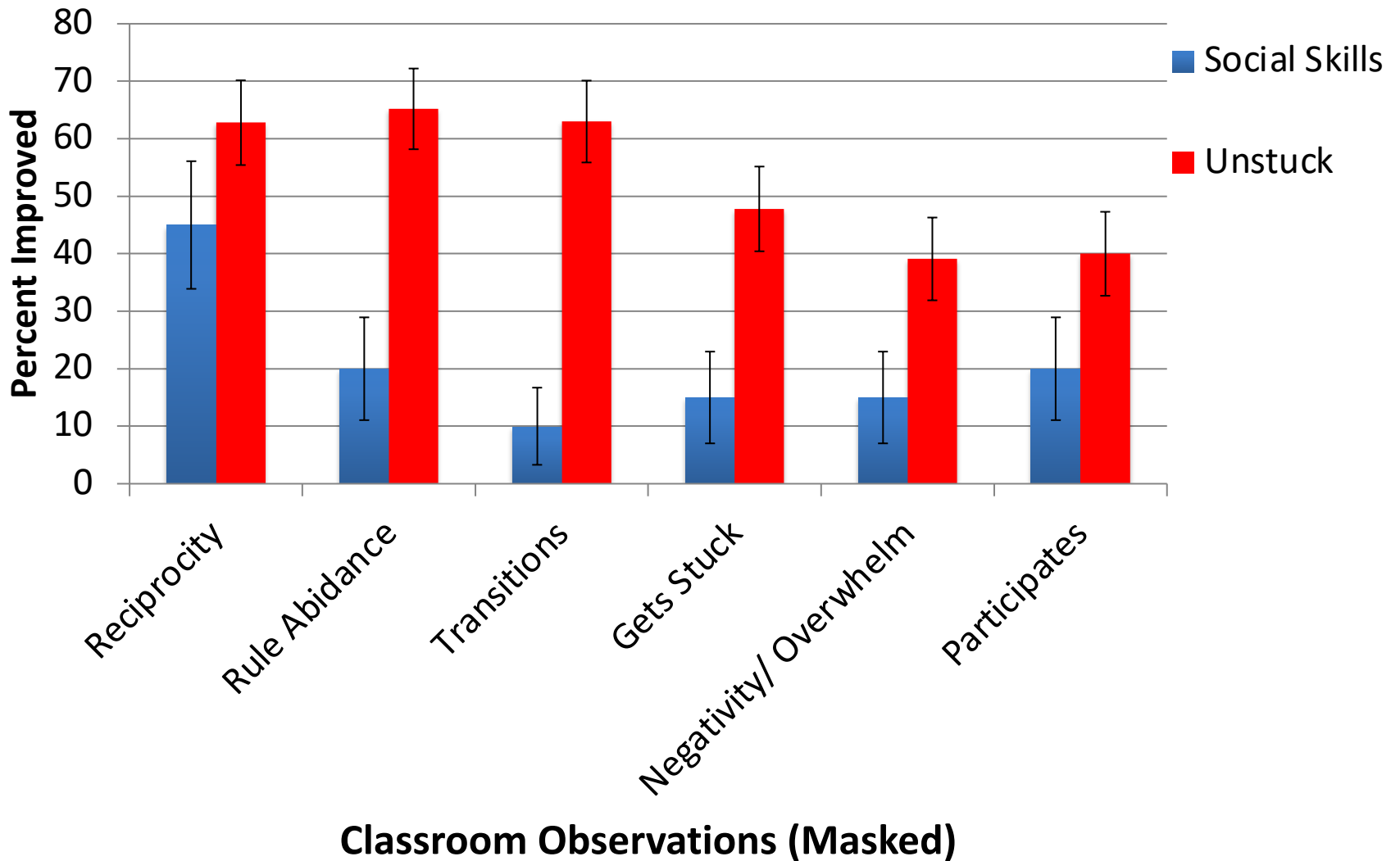
<sup>1</sup>Children's National Medical Center, Center for Autism Spectrum Disorders, Rockville, MD, USA; <sup>2</sup>The George Washington University School of Medicine, Washington, DC, USA; <sup>3</sup>Department of Applied Mathematics and Statistics, Johns Hopkins University, Baltimore, MD, USA; <sup>4</sup>The Ivymount School, Rockville, MD, USA; <sup>5</sup>Laboratory of Brain and Cognition, National Institute of Mental Health, National Institutes of Health, Bethesda, MD, USA


- Trial 2 (PCORI CER) – Disparities Comparative effectiveness trial comparing Unstuck to an adapted Contingency Behavior management system

PCORI AD-1304-7379



# Evidence (trials)

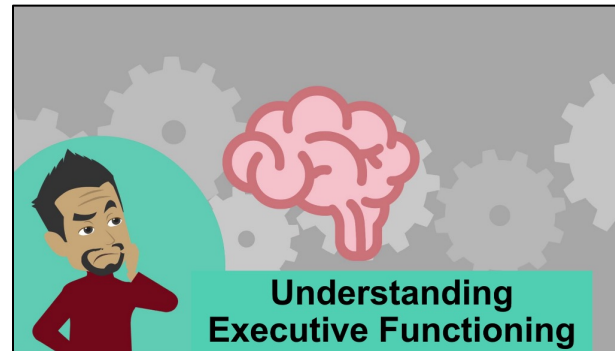


 <b>Target:</b>	<b>ASD</b>		<b>ADHD</b>	
	<b>UOT</b>	<b>CBM</b>	<b>UOT</b>	<b>CBM</b>
<b>Classroom behavior</b>	✓	X	✓	✓
<b>Student acceptability</b>	✓	X	✓	X
<b>Parent acceptability</b>	✓	X	✓	X
<b>Problem-solving</b>	✓	✓	✓	X
<b>Social Flexibility</b>	✓	X	✓	✓
<b>Planning</b>	✓	X	✓	✓

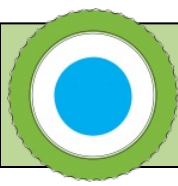
# Current Dissemination/Implementation Project

- Dissemination & Implementation (PCORI D&I) – translating training into online format and disseminating Unstuck broadly
- Covid-19 Enhancement project provided Supplemental funding to create Unstuck at home parent materials

PCORI DI-2019C2-17605



- Additional supplemental funding received to examine the cost of running unstuck

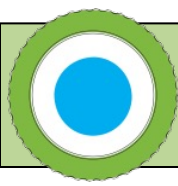


# Today's Plan

Goal: To discuss multiple methods of intervention for EF skill development using the Unstuck and On Target curricula

Plan:

- Introduction – What is EF and why is it important
- **Presentation 1: Utility of online educator training in an EF intervention for elementary students with ASD/ADH**



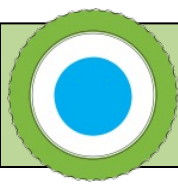
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- **Presentation 2: Acceptability and challenges connected to EF intervention for elementary students with ASD/ADH**



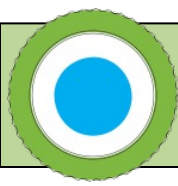


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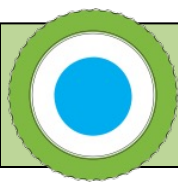


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- **Presentation 4: Adapting a School-based Executive Functioning Intervention for an Outpatient Clinic**

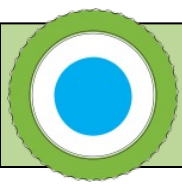


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- Presentation 3: Feasibility of Accessible Videos for Caregivers of Children with Executive Function Challenge
- Presentation 4: Adapting a School-based Executive Functioning Intervention for an Outpatient Clinic
- **Discussion – What does this mean and next steps**

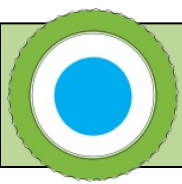


# Utility of online educator training in an EF intervention for elementary students with ASD/ADH

Alyssa Verbalis, Jacob Whiteford, Laura Campos, Christina Studts, Tennyson Dahlman, Anna C. Armour, Jessica Holmes, Jessica V Smith, Eddy Panklang, Jack Cronin, Monica Adler Warner Lynn Cannon, Katie C. Alexander, Meredith Gunn, Mark Gritz, Bruno Anthony, Laura Anthony, Lauren Kenworthy

This work was supported by a grant from the Patient Centered Outcomes Research Institute (PCORI) DI-2019C2-17605.

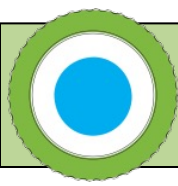




# Training Development

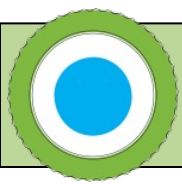


*Unstuck and On Target for Elementary Educators*



# Why an Online Training?

- In the original Unstuck studies, implementers were trained by our team and in person
  - Not a scalable training model!
- Our goal: Increase the reach, adoption, implementation, and maintenance of Unstuck
- A free online training for Unstuck could:
  - Increase the number of schools adopting Unstuck
  - Increase the number of implementers delivering Unstuck
  - Increase the number of children reached by Unstuck
  - Increase the chances of sustaining Unstuck over time



# Training Development: Process



**Iterative review process**

**UConn** | SCHOOL OF SOCIAL WORK

INNOVATIONS INSTITUTE

# Online Educator Training trial



9 modules



asynchronous

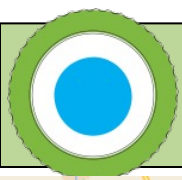


3 to 3.5 hours

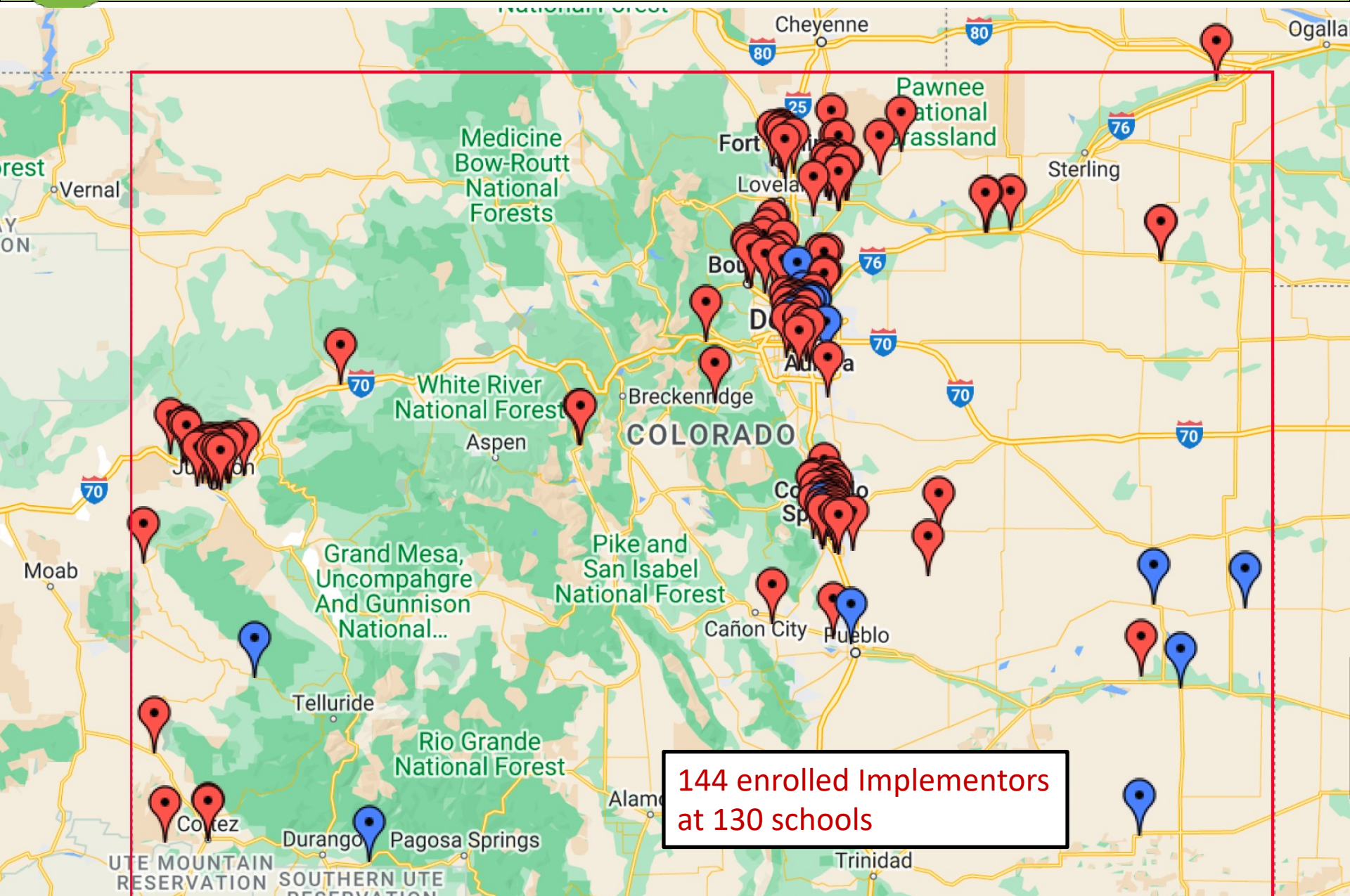


free

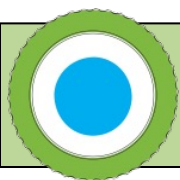




# Pin map of Colorado

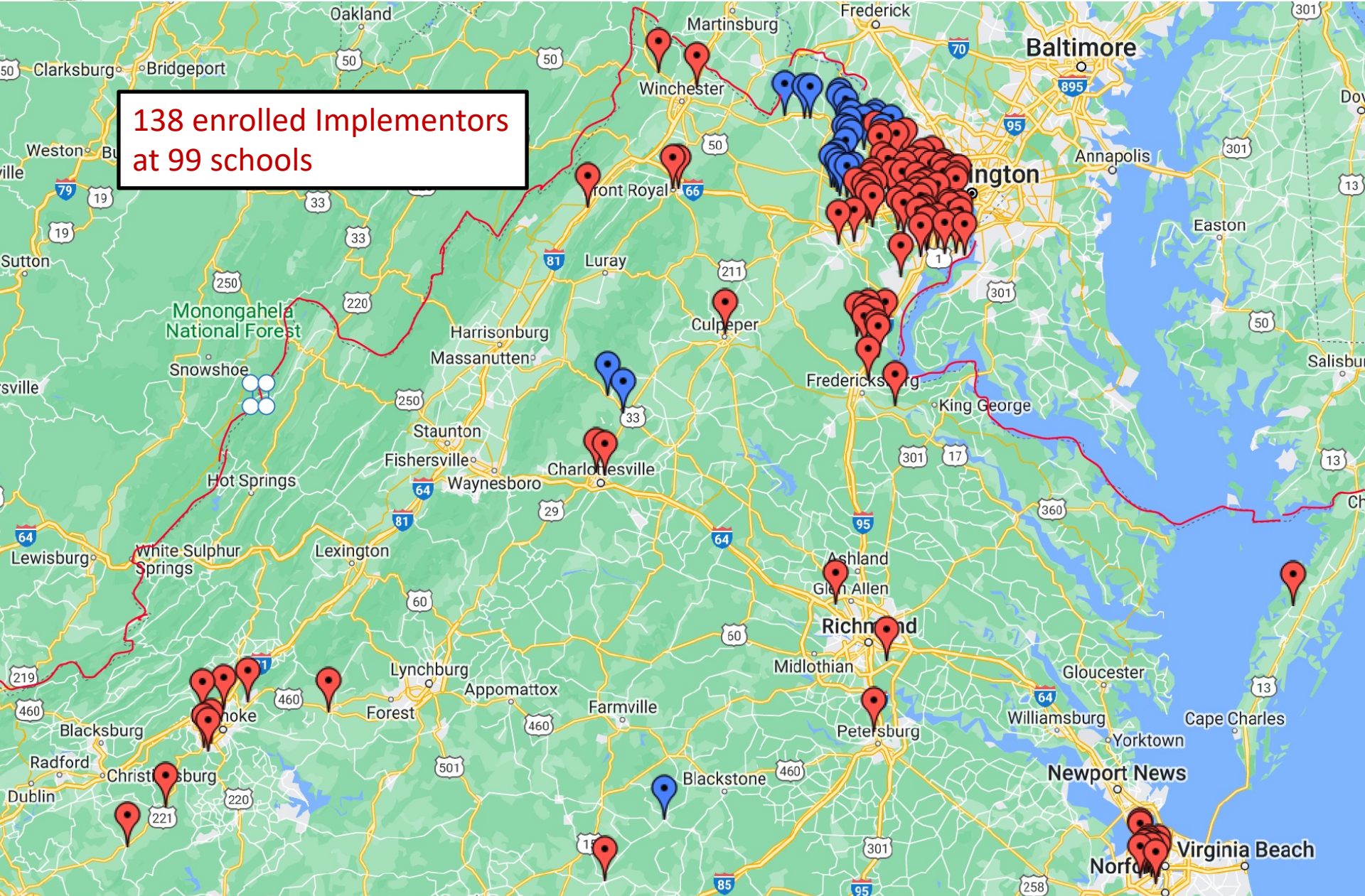


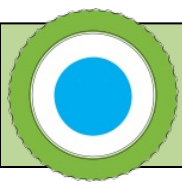
**144 enrolled Implementors  
at 130 schools**



# Pin Map of Virginia

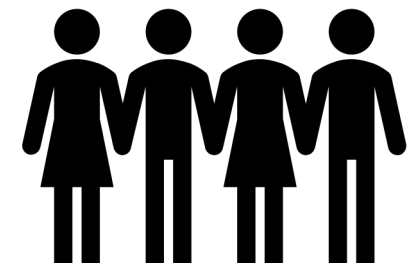
**138 enrolled Implementors  
at 99 schools**

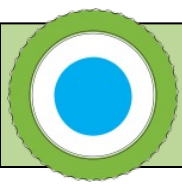




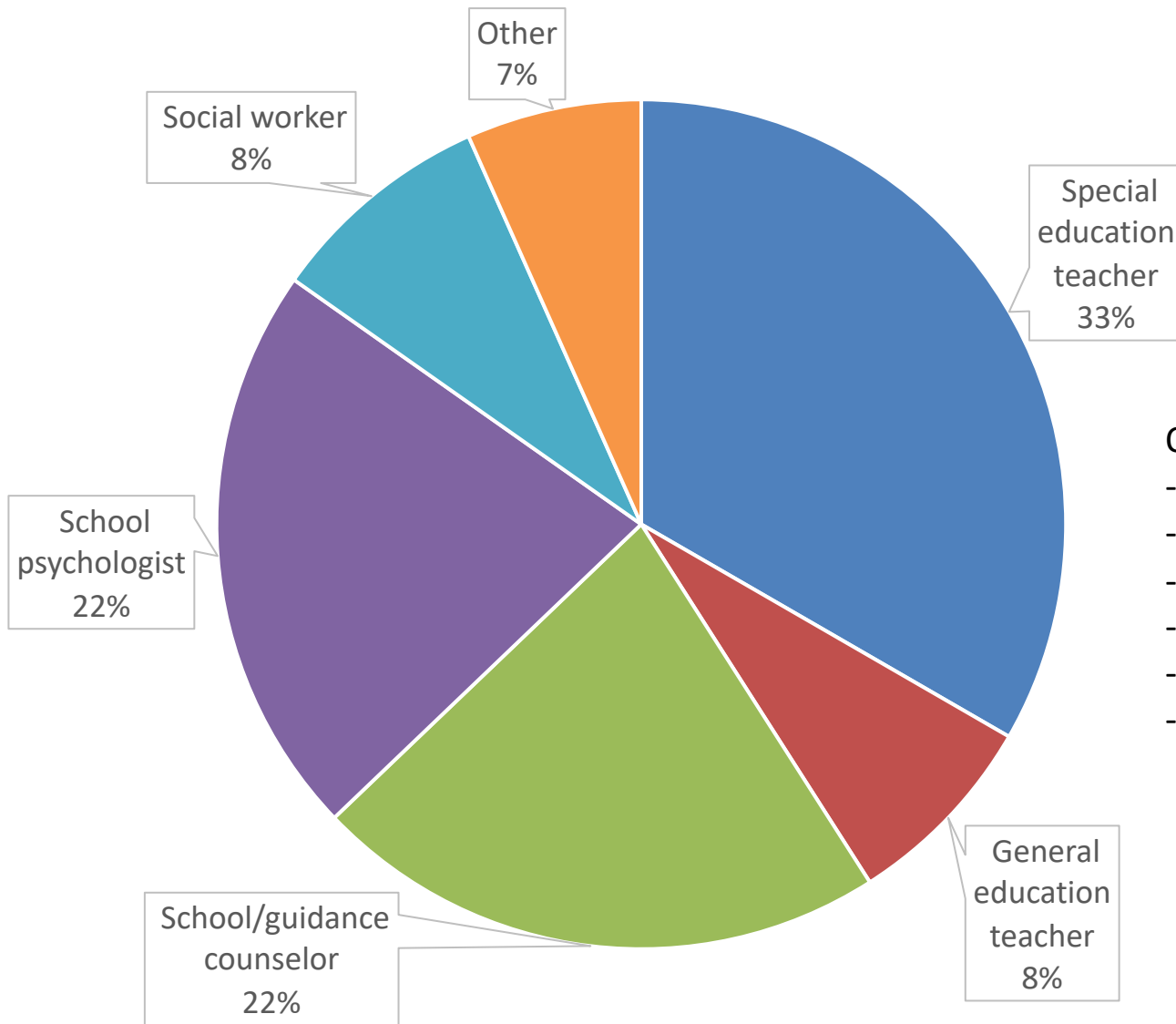
# Implementer Demographics

Total	N = 282 (100%)	
Gender		
Male	N = 17 (6%)	
Female	N = 264 (94%)	
Unreported	N = 1 (0.3%)	
Age	41 years (SD = 10.9)	
Years Teaching	11 years (SD = 8.2)	
Ethnicity		
Hispanic/Latine	N = 25 (9%)	
Not Hispanic/Latine	N = 253 (90%)	
Unreported	N = 4 (1%)	
Race		
Native American	N = 1 (0.3%)	
Asian	N = 7 (2.5%)	
Black	N = 8 (2.8%)	
White	N = 253 (90%)	
Multiracial	N = 9 (3.2%)	
Other	N = 2 (0.7%)	
Unreported	N = 2 (0.7%)	



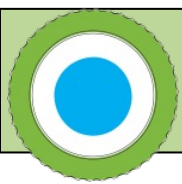


# Implementer Occupations



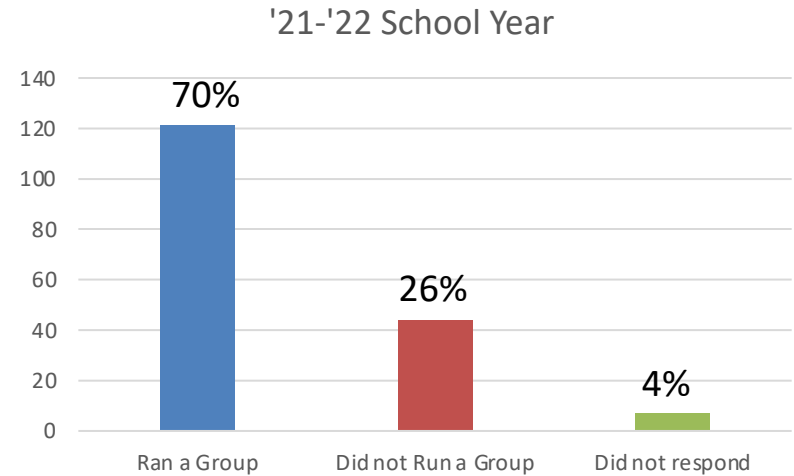
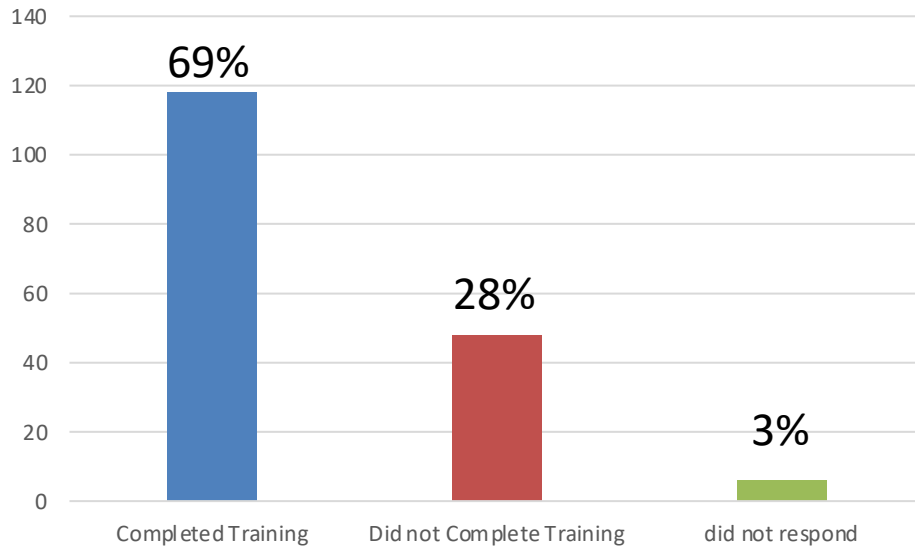
Other includes:

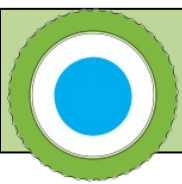
- Speech/language therapist
- Occupational Therapist
- BCBA
- Reading Specialist
- Instructional specialist
- Principal



# Results

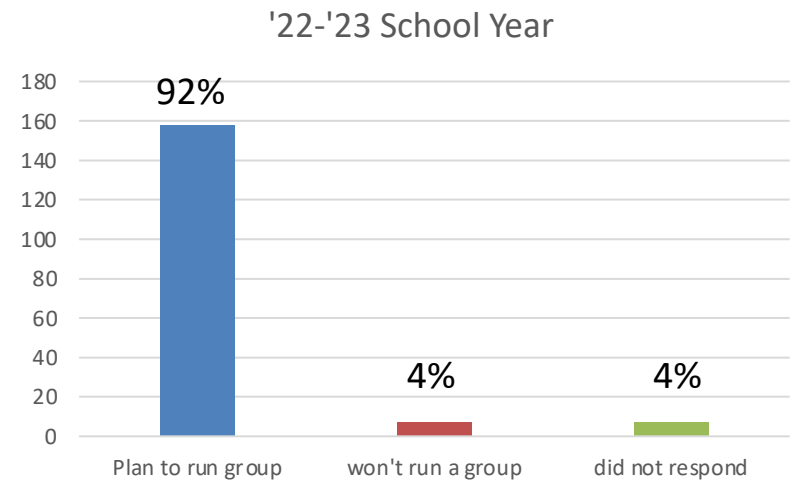
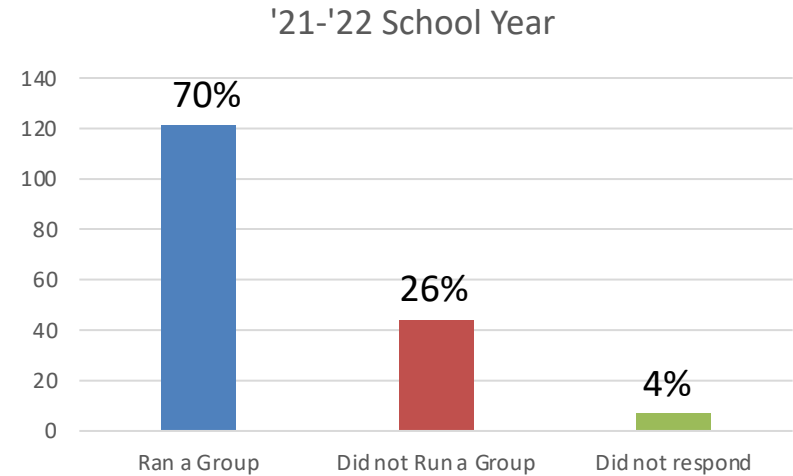
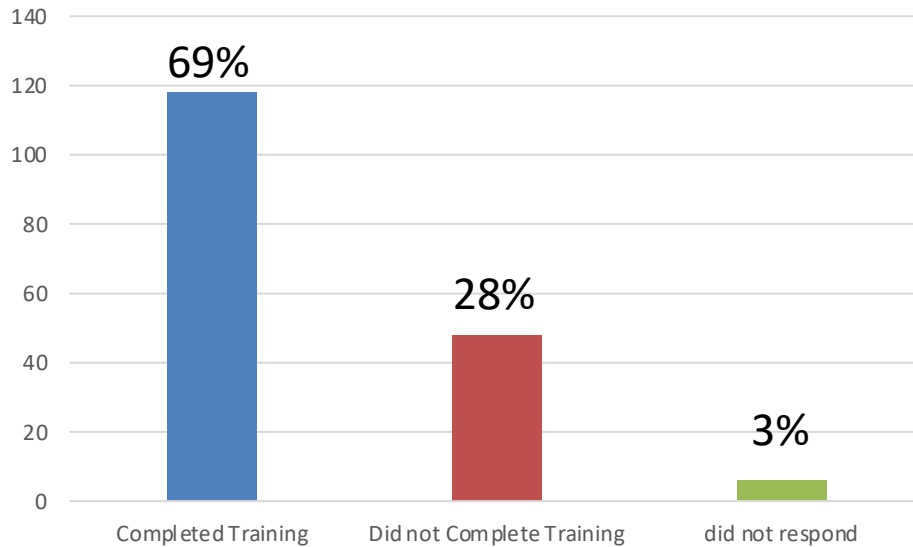
**172 (61%) completed data at the end of the school year)**

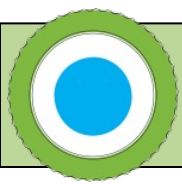




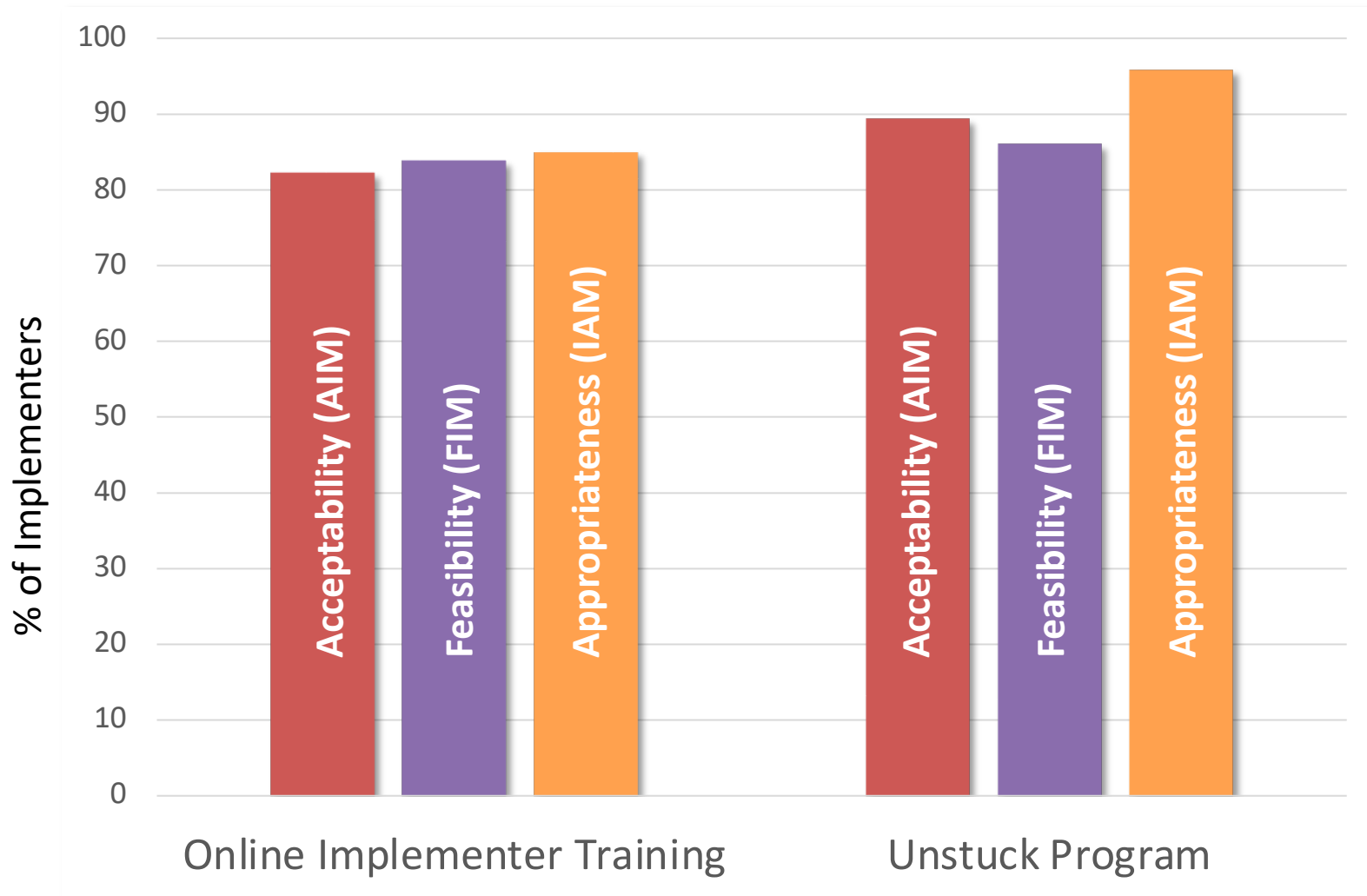
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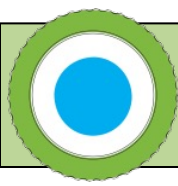
**172 (61%) completed data at the end of the school year)**





# Acceptability, Feasibility, and Appropriateness

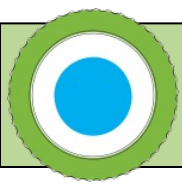




# Understanding the Cost of Unstuck

- Activity-Based Costing (ABC)
- Process-mapping approach
- Time-activity data collection
  - Self-reported activity logs
  - Surveys
  - Supplemented with key informant interviews
  - Random-week sampling
- Assuming:
  - 21 weeks where implementers deliver UOT lessons
  - 15 weeks without UOT lessons

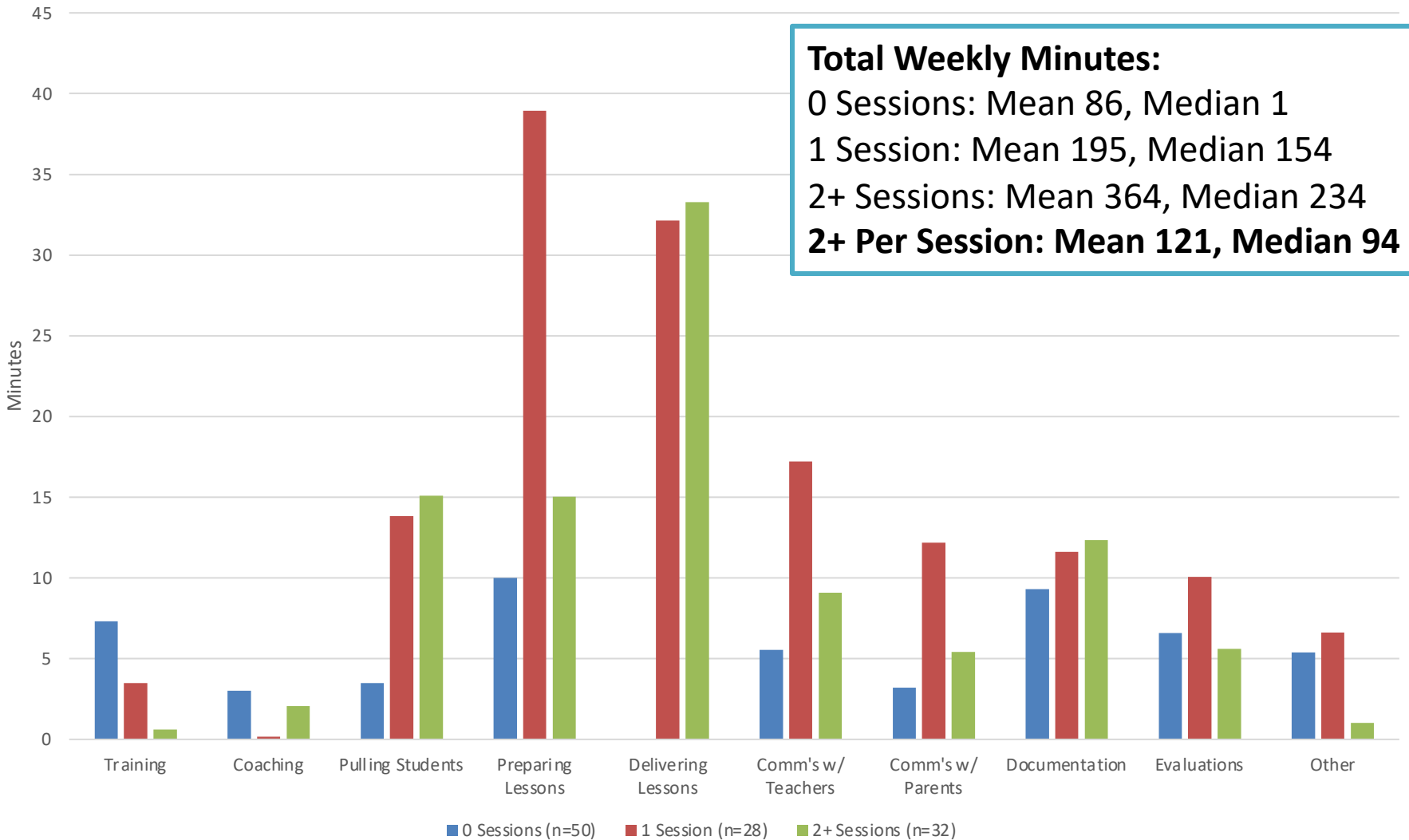


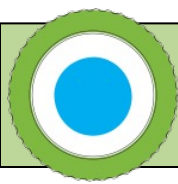


# How Are Implementers Spending Their Time

Mean Minutes per Week

**Total Weekly Minutes:**  
0 Sessions: Mean 86, Median 1  
1 Session: Mean 195, Median 154  
2+ Sessions: Mean 364, Median 234  
**2+ Per Session: Mean 121, Median 94**





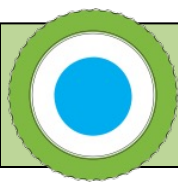
# So What Does It Cost?

## Overall Average Minutes Per Session

	Weeks without Sessions (n=15)	Weeks with Sessions (n=21)	Implementation Personnel Costs	Other Implementation Costs	Pre-implementation Costs	Total Cost of Implementation
(1) Special Education Teacher	\$ 1,286.09	\$ 6,479.50	\$ 9,736.06	\$ 54.72	\$ 931.70	\$ 10,722.48
School Psychologist	\$ 272.39	\$ 1,698.08				
(2) School Psychologist	\$ 1,545.44	\$ 7,786.13	\$ 10,916.69	\$ 54.72	\$ 931.70	\$ 11,903.11
General Education Teacher	\$ 219.12	\$ 1,366.00				
(3) Guidance Counselor	\$ 1,177.99	\$ 5,934.84	\$ 9,538.48	\$ 54.72	\$ 931.70	\$ 10,524.89
Administrataor	\$ 335.31	\$ 2,090.34				

## Two+ Sessions Average Minutes Per Session.

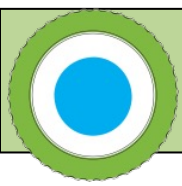
	Weeks without Sessions (n=15)	Weeks with Sessions (n=21)	Implementation Personnel Costs	Other Implementation Costs	Pre-implementation Costs	Total Cost of Implementation
(1) Special Education Teacher	\$ 1,286.09	\$ 5,042.02	\$ 7,664.43	\$ 54.72	\$ 931.70	\$ 8,650.85
School Psychologist	\$ 272.39	\$ 1,063.93				
(2) School Psychologist	\$ 1,545.44	\$ 6,058.77	\$ 8,679.20	\$ 54.72	\$ 931.70	\$ 9,665.61
General Education Teacher	\$ 219.12	\$ 855.87				
(3) Guidance Counselor	\$ 1,177.99	\$ 4,618.19	\$ 7,441.19	\$ 54.72	\$ 931.70	\$ 8,427.60
Administrataor	\$ 335.31	\$ 1,309.70				



# Summary For Cost Supplement

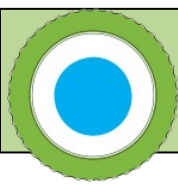
- Unstuck was delivered by implementers in varying roles
- Overall cost to deliver Unstuck in a single school year was driven by implementer role
  - Ranged from \$8,427.60 to \$11,903.11
- Costs other than personnel time were minimal
- Implementers described variations in time spent associated with:
  - Number of sessions delivered per week
  - Amount of prep time
  - Amount of communication with teachers and parents





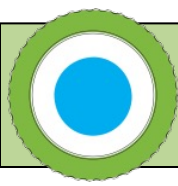
## How many kids actually got exposure?

- Of the 172 implementers who completed post questionnaire, they indicated that **1460 students** received Unstuck lessons. This would extrapolate to **2393 students** receiving Unstuck lesson for all 282 enrolled implementers.
- Further, the implementers who completed post estimated that **2453 students** at their schools had some exposure to Unstuck during the 2021-2022 school year. This extrapolates to **4021 students** in all enrolled schools.
- We collected follow up data from 140 implementors one year later, who estimated that **1750 students** at their schools received Unstuck during the 2022-2023 school year. Again, this extrapolates to **3535 students** in all enrolled schools.



## Overall Conclusion and Next Steps

- *Unstuck* is a low-cost, evidence-supported EF intervention that can be implemented with fidelity by school staff, thus reducing many barriers in access to care for elementary age children with flexibility, organization, and planning challenges.
- The development of an effective on-line educator training modules removes a key implementation barrier related to school staff training needs.
- Currently collecting data on whether the training and program is spreading to other schools.



# Acceptability and challenges connected to EF intervention for elementary students with **ASD/ADHD**

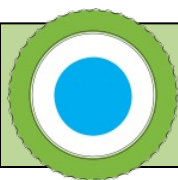
Laura Campos, Christina Studts, Alyssa Verbalis, Jack Cronin, Anna C. Armour, Tennyson Dahlman, Jessica Holmes, Eddy Panklang, Jessica V. Smith, Jacob Whiteford, Meredith Gunn, Bruno Anthony, Mark Gritz, Laura Anthony, Lauren Kenworthy



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**Children's National.**

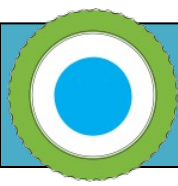


## Disclosures

The work being presented today was partially funded through a Patient-Centered Outcomes Research Institute (PCORI) addressing disparities research award (AD-1304-7379) and a PCORI Dissemination and Implementation Award (DI-2019C2-17605).

The statements and opinions in these presentations are solely the responsibility of the authors and do not necessarily represent the views of the Patient-Centered Outcomes Research Institute (PCORI), its Board of Governors or Methodology Committee.



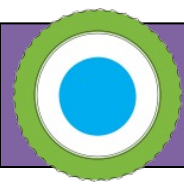


# Introduction



- Barriers and facilitators are important to understand so that implementation and interventions can be improved





# Methods

Implementers were purposively selected:

State & School  
Setting



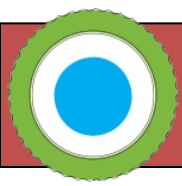
Quantitative  
survey results



Time spent on  
intervention



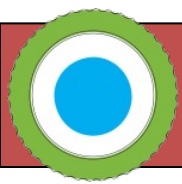
Interviews Completed: 26



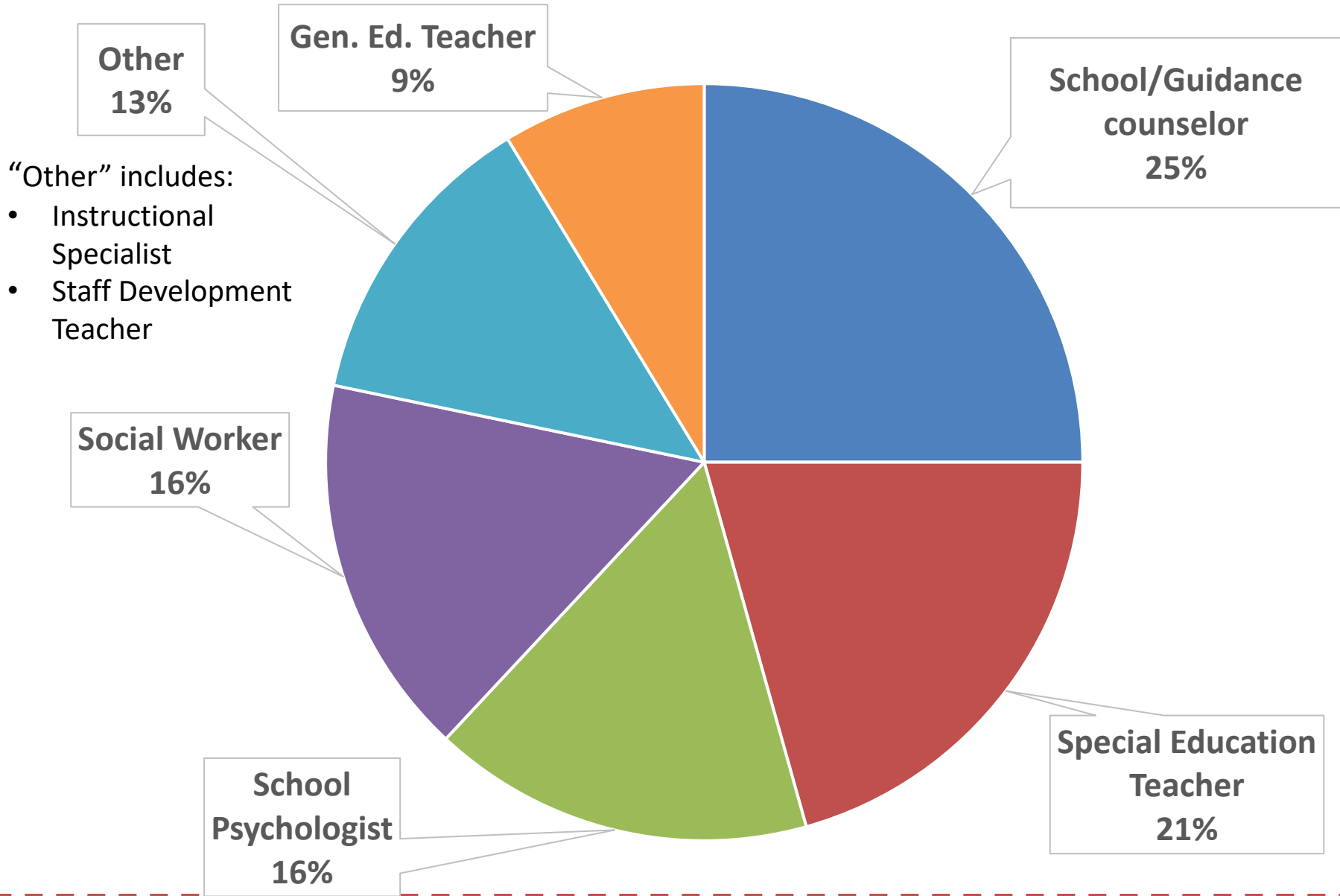
# Implementer & School Characteristics

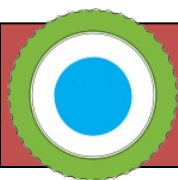
Implementer Characteristics	n
Gender	
Female	25
Male	1
Race	
White	24
Multiracial	2
Ethnicity	
Hispanic	2
Not Hispanic	24

School Characteristics	n
School Type	
Private	1
Public	25
Setting	
Rural	7
Urban	19



# Implementer Occupations

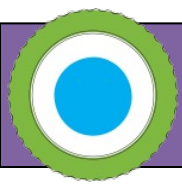




# Quantitative Ratings

Implementer Ratings	n
Unstuck AIM/FIM/IAM	
High	12
Low	11
Missing	3
Online training AIM/FIM/IAM	
High	14
Low	9
Missing	3

Reported Minutes per Week	Count
0-60	6
61-120	6
121-181	5
181-240	2
241+	1
Missing	6

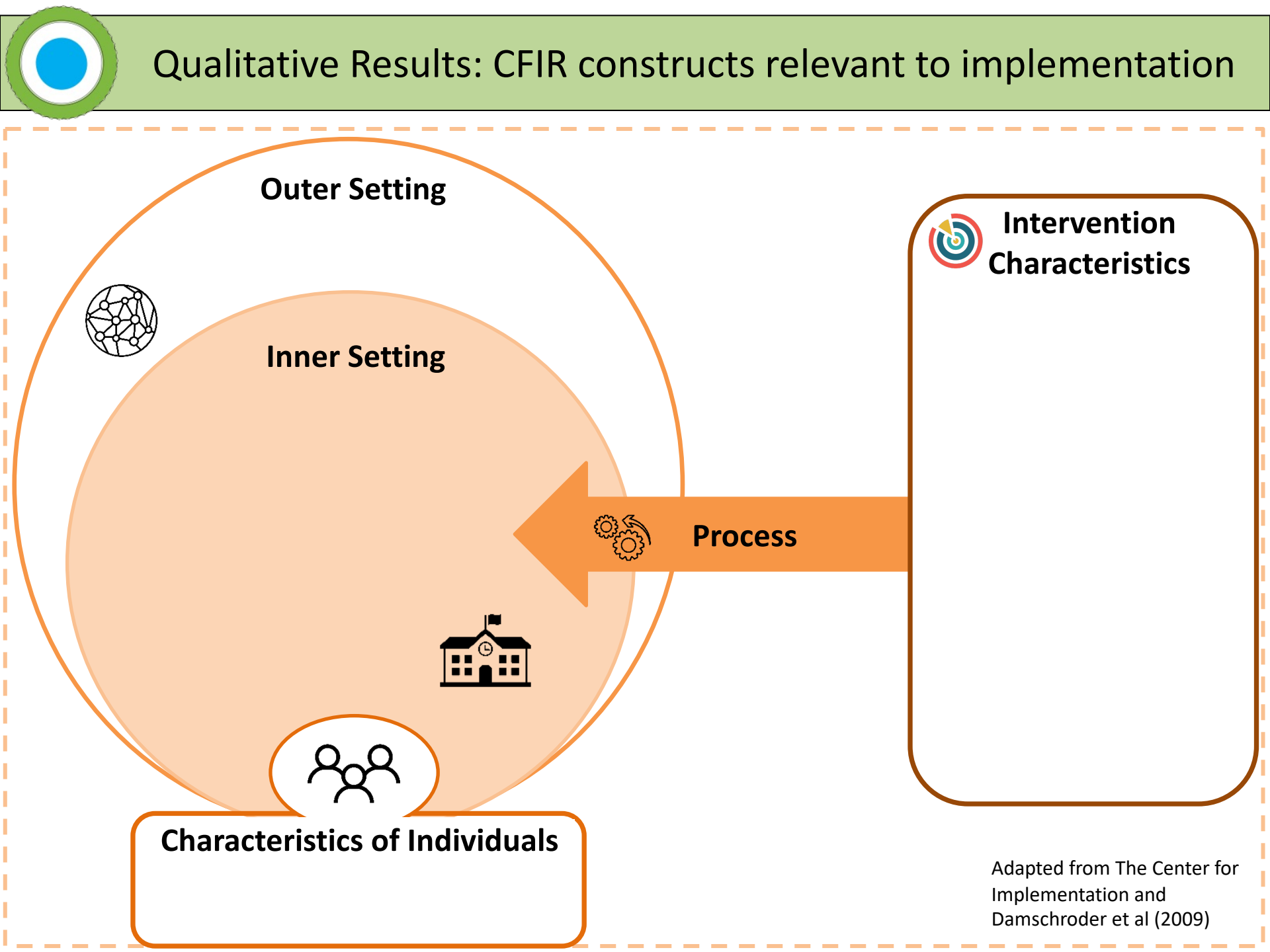


# Methods

## Implementation Frameworks

- **Consolidated Framework for Implementation Research (CFIR)**
  - Outer/Inner Setting
  - Individual/Intervention Characteristics
  - Process
- **Reach, Effectiveness, Adoption, Implementation, and Maintenance Framework (RE-AIM)**

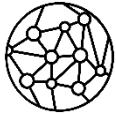
# Qualitative Results: CFIR constructs relevant to implementation



Adapted from The Center for Implementation and Damschroder et al (2009)

# Qualitative Results: CFIR constructs relevant to implementation

- Outer Setting**
- Family needs & resources
  - External policies & incentives



## Inner Setting



## Characteristics of Individuals



## Intervention Characteristics



## Process

Adapted from The Center for Implementation and Damschroder et al (2009)

# Qualitative Results: CFIR constructs relevant to implementation



## Outer Setting

- Family needs & resources
- External policies & incentives

## Inner Setting

- Readiness for implementation
- Implementation climate
- Networks & communications
- Relative priority



## Characteristics of Individuals



## Intervention Characteristics



## Process

Adapted from The Center for Implementation and Damschroder et al (2009)



# Qualitative Results: CFIR constructs relevant to implementation



## Outer Setting

- Family needs & resources
- External policies & incentives

## Inner Setting

- Readiness for implementation
- Implementation climate
- Networks & communications
- Relative priority



## Characteristics of Individuals

- Knowledge & beliefs
- Self-efficacy



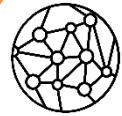
## Process



## Intervention Characteristics

Adapted from The Center for Implementation and Damschroder et al (2009)

# Qualitative Results: CFIR constructs relevant to implementation



## Outer Setting

- Family needs & resources
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## Inner Setting

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- Implementation climate
- Networks & communications
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## Characteristics of Individuals

- Knowledge & beliefs
- Self-efficacy



## Process

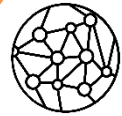
- Planning
- Engaging



## Intervention Characteristics

Adapted from The Center for Implementation and Damschroder et al (2009)

# Qualitative Results: CFIR constructs relevant to implementation



## Outer Setting

- Family needs & resources
- External policies & incentives

## Inner Setting

- Readiness for implementation
- Implementation climate
- Networks & communications
- Relative priority



## Characteristics of Individuals

- Knowledge & beliefs
- Self-efficacy



## Process

- Planning
- Engaging



## Intervention Characteristics

### *Unstuck Training*

- Complexity
- Design quality & packaging

### *Unstuck Intervention*

- Cost
- Evidence quality
- Relative advantage
- Adaptability

Adapted from The Center for Implementation and Damschroder et al (2009)

# Qualitative Results: **FACILITATORS** to implementation



## Outer Setting

- Meets community need
- Leadership support

## Inner Setting

- Enthusiastic colleagues
- Time & space made available
- Compatibility with implementer's existing workflow



## Characteristics of Individuals

- ASD/ADHD/EF knowledge/background



## Process

- Adequate planning time
- Support from Unstuck team



## Intervention Characteristics

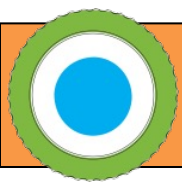
### *Unstuck Training*

- Self-paced
- Simple and easy to use

### *Unstuck Intervention*

- Compatibility with IEPs
- Adaptability

Adapted from The Center for Implementation and Damschroder et al (2009)



# Quotes: **FACILITATORS** to implementation

“I think that's the hard part about executive functioning like how to teach it, so it was nice to have those lessons already prepared and there was some like flexibility and how you are delivering it.”

Special Ed  
Teacher in a  
rural school

“So what was helpful, is having a really good team of educators and parents who are on board with learning about it.”

Guidance  
counselor in a  
public school

# Qualitative Results: **BARRIERS** to implementation



## Outer Setting

- School district “pushing” other interventions

## Inner Setting

- Overwhelmed school personnel
- No dedicated time or space
- Incompatible with role/workflow



## Characteristics of Individuals

- Low self-efficacy to deliver the intervention



## Process

- Starting later in the year
- No formal personnel-wide introduction to Unstuck



## Intervention Characteristics

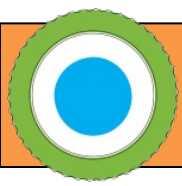
### *Unstuck Training*

- Challenges navigating training and resources

### *Unstuck Intervention*

- Difficult to finish full lesson in time available

Adapted from The Center for Implementation and Damschroder et al (2009)



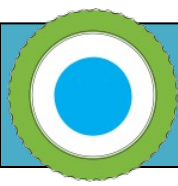
# Quotes: **BARRIERS** to implementation

“I did get a little confused on like the materials and the material prep part of the lesson plans, like, I do remember getting confused on like where to find those materials.”

Speech  
Language  
Pathologist in a  
rural school

“Even with more experience, I would still feel like I probably couldn’t get through those lessons meaningfully in 30 minutes.”

School  
Psychologist in  
a public  
school



# Conclusions

## **Where are we now?**

- Increased understanding of varying experiences
- Identified important facilitators and barriers to Unstuck implementation

## **Adaptability of Unstuck**

- Key characteristic to continue improving its “fit”

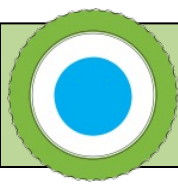
## **Examples of adaptations identified by implementers:**

- Changing the delivery modality
- Breaking lessons into shorter pieces
- Meeting more or less frequently with students
- Creating their own supporting materials

## **Where are we going next?**

- Select strategies to leverage facilitators and overcome barriers





# Feasibility of Accessible Videos for Caregivers of Children with Executive Function Challenges

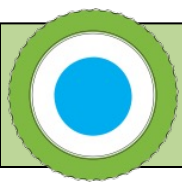
Jessica V. Smith, Tennyson Dahlman, Alyssa Verbalis, Jessica Holmes, A. Chelsea Armour, Allison B. Ratto, Kristina K. Hardy, Meredith Gunn, Kaitlyn Decker, Dennard Brown, Te'Andis Elliott, Monica A. Werner, Katie C. Alexander, Lynn Cannon, Bruno J. Anthony, Lauren Kenworthy, Laura G. Anthony



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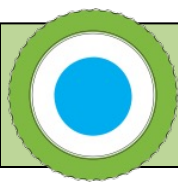


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# Background

Generalization of skills to home is a lasting clinical challenge (Swan, Carper, & Kendall, 2016)



Engaging caregivers in treatment is crucial (e.g., Haines-Schlagel et al., 2022)

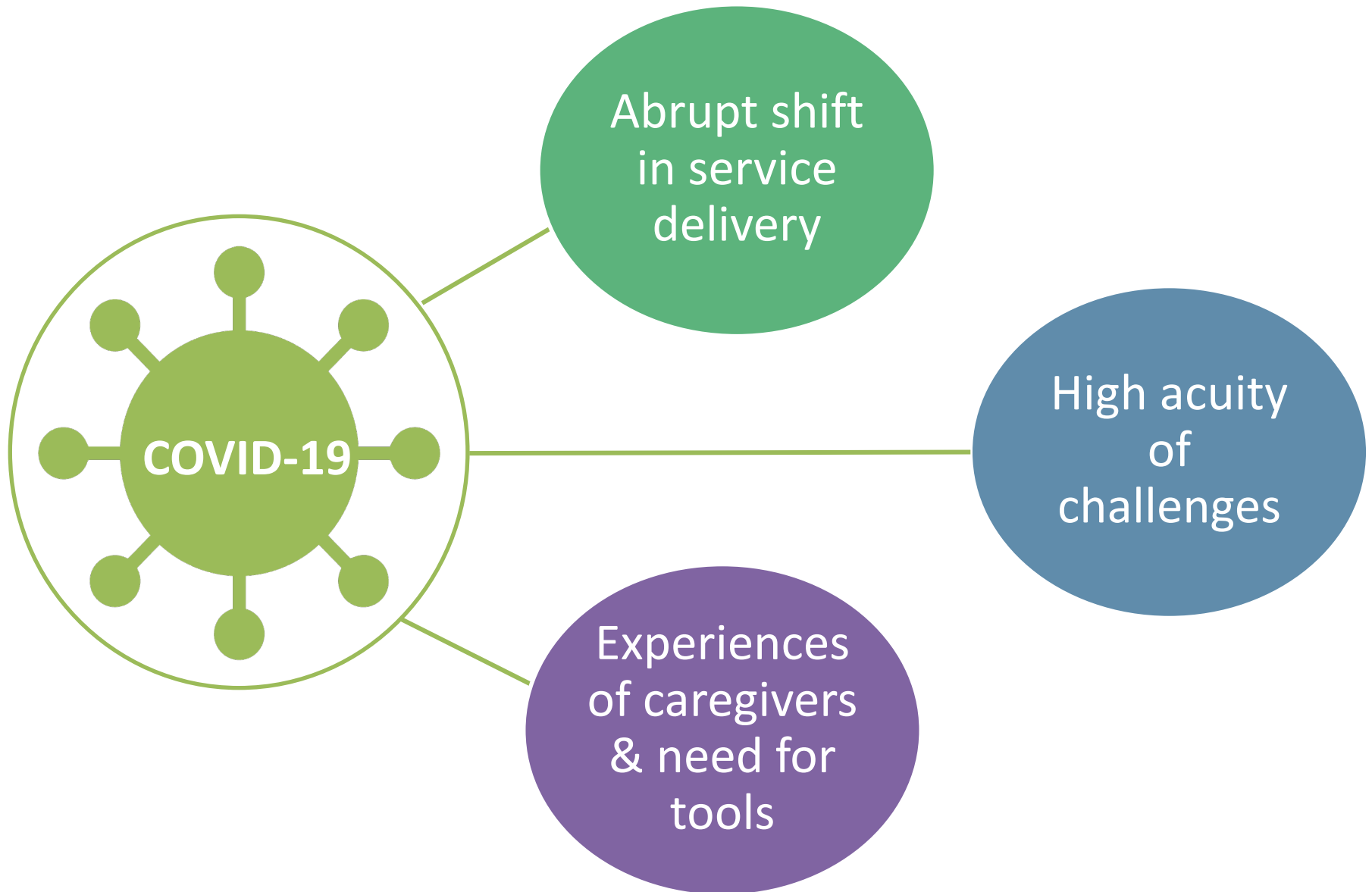


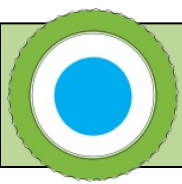
Barriers to treatment can prevent caregiver engagement (Vohra et al., 2014)



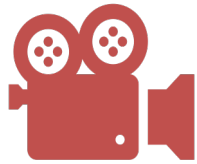
Technology can limit barriers to treatment & maintain outcomes (Pacione, 2022)

# Context: COVID-19 Pandemic





# Present Project



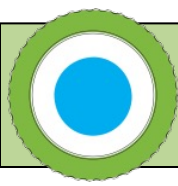
Content  
development



Evaluation



Dissemination



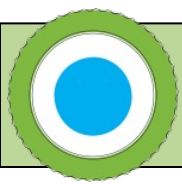
## Production of Videos

Translated core components of Unstuck to home-based supports

Psychoeducation & effective support strategies for child EF

12 videos total, 5 also available in Spanish

- 2.78 -7.45 minutes,  $M = 4.72$



# Iterative Development



Development team

- Developed script & storyboard of video

Development Team

- Integrated feedback & finalized content

Development Team

- integrated feedback of participants & revised
- created supplemental materials



Community advisory board

- Reviewed content & videos

Participants in the present project

- reviewed up to 12 videos total

# Evaluation: Participants

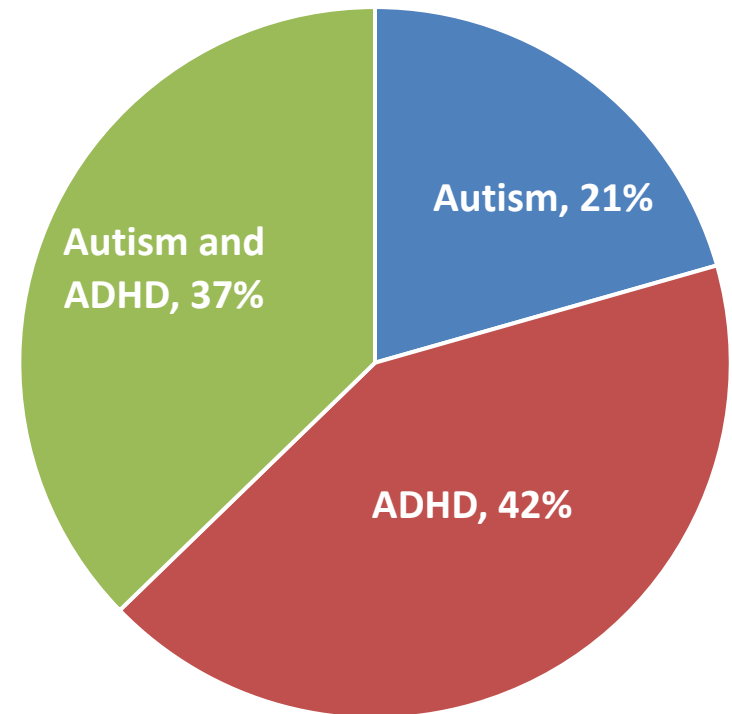


Caregivers of third to fifth graders with caregiver-reported EF challenges & symptoms of autism, ADHD, or both

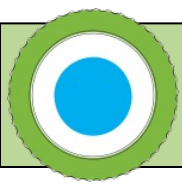
$N = 102$

- 91% female
- 63% White
- Age:  $M = 41.33$ ,  $SD = 6.15$
- $n = 14$  Spanish-English speakers

*Fully remote study, received groups of videos at a time*





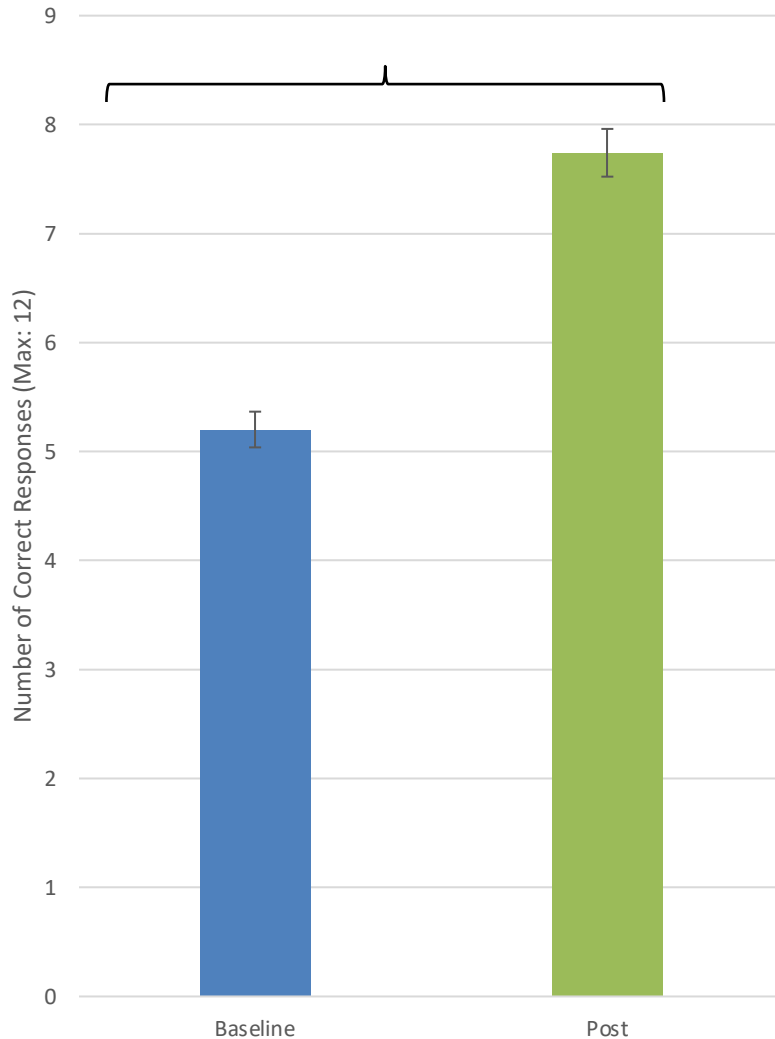


# Evaluation: Results



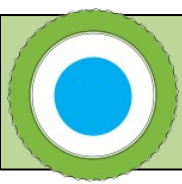
## Caregiver Knowledge

$d = 1.51, p < .001$

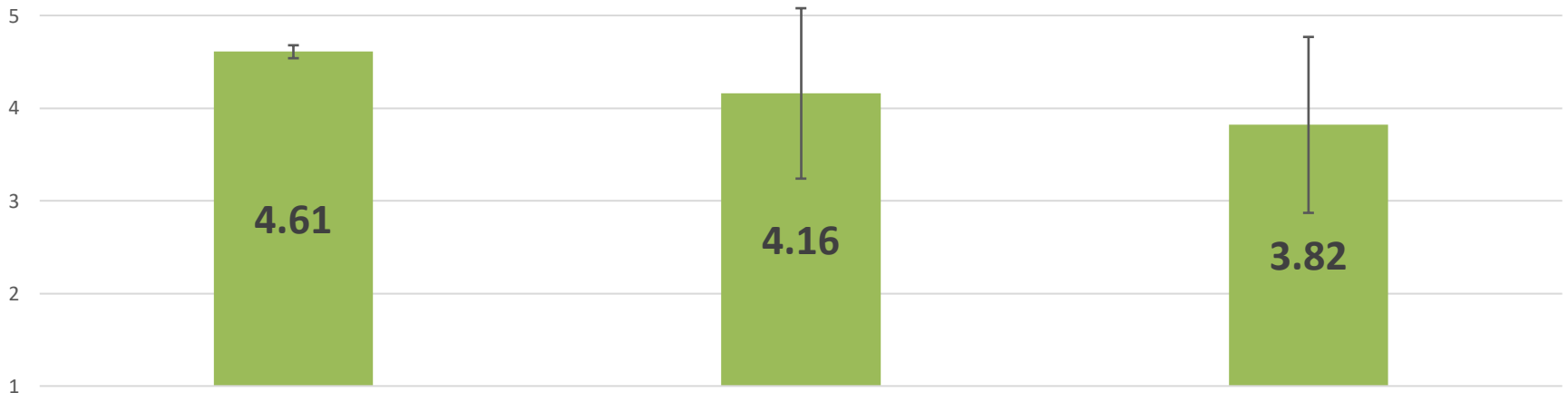


## Caregiver-Report of Helpfulness

Video	M	SE
Understanding Executive Functioning	4.08	0.93
Motivation: Being Flexible Gives You Choices	4.13	0.96
What to Do When What We Want Seems Impossible	3.82	0.98
Break it Down	3.89	1
Compromising So Everyone Wins	3.94	0.92
Is it a "Can't" or a "Won't?"	4.03	0.95
Expect the Unexpected & Manage Disappointment	4.06	0.9
Goal, Why, Plan	4.21	0.84
Plan A/Plan B & Big Deal/Little Deal	4.15	0.83
Talk Less/Write it Down	4.15	0.87
Preventing Overload	3.75	1.03
Managing Intense Feelings	3.83	0.98



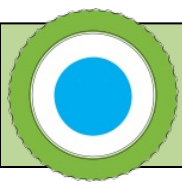
# Evaluation: Results



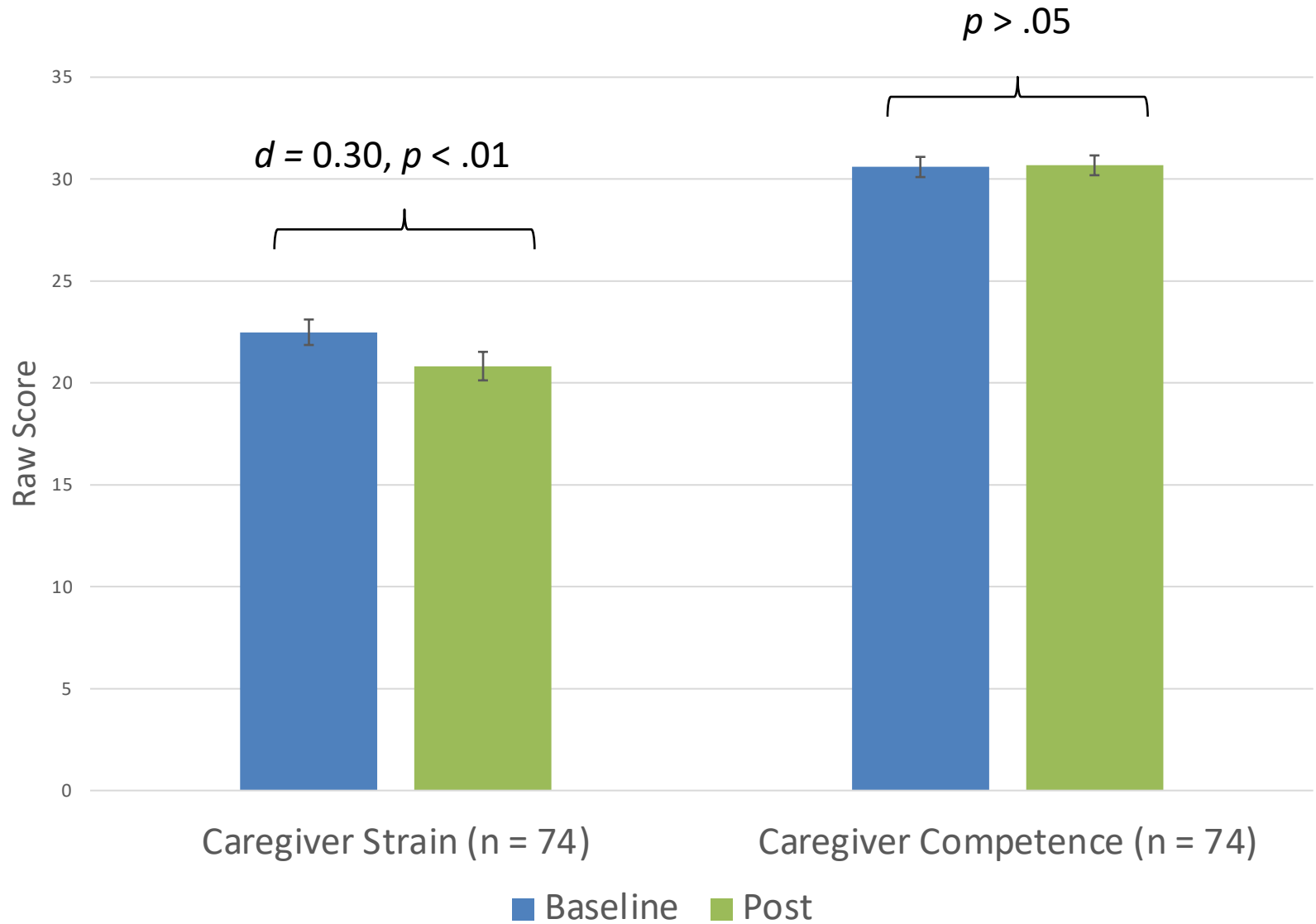
I would recommend these videos to another parent.

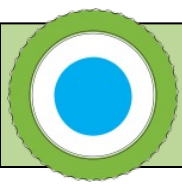
These videos were valuable to me as a parent.

These videos changed the way I think about my child's difficulty.

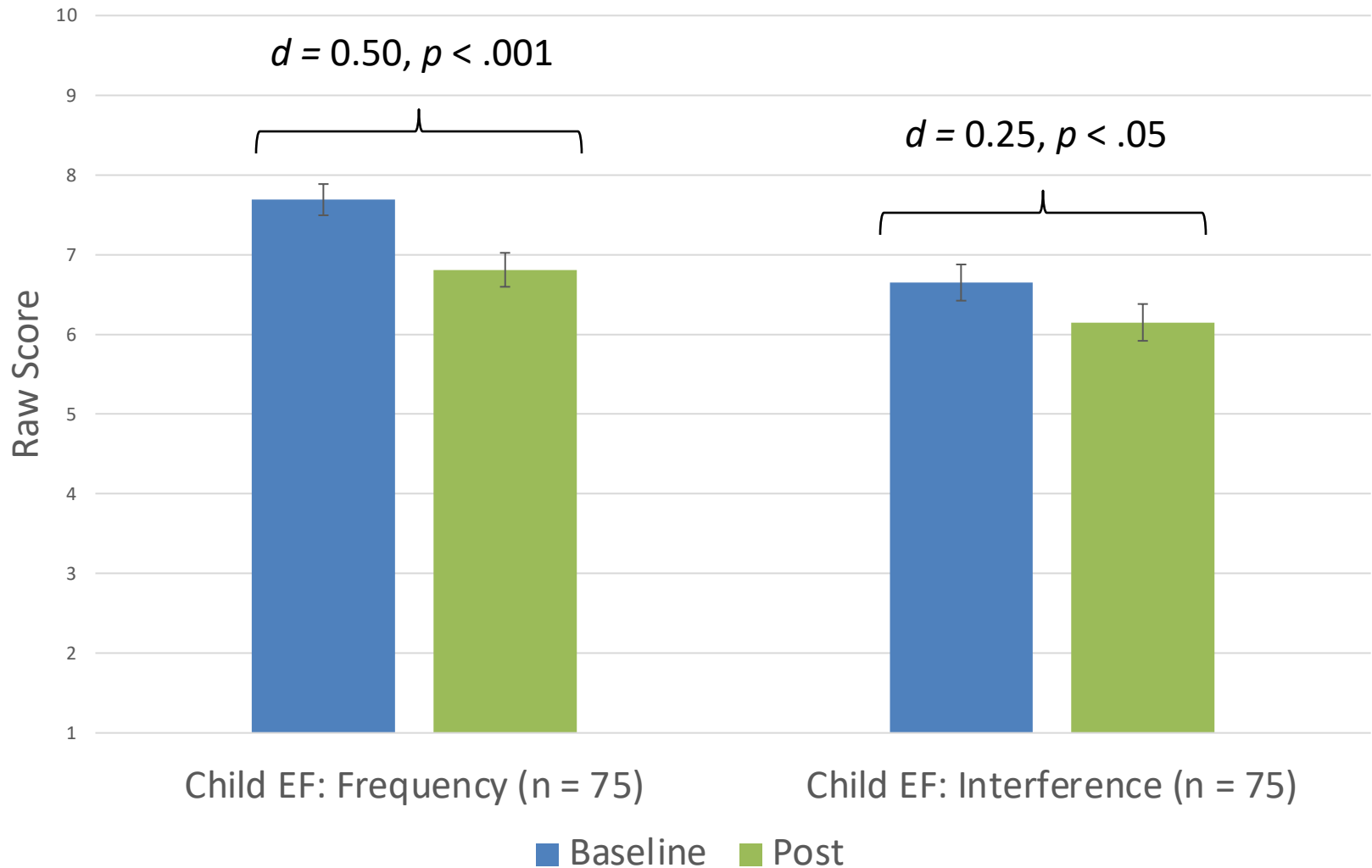


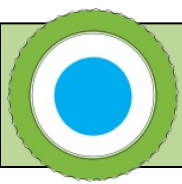
# Evaluation: Results



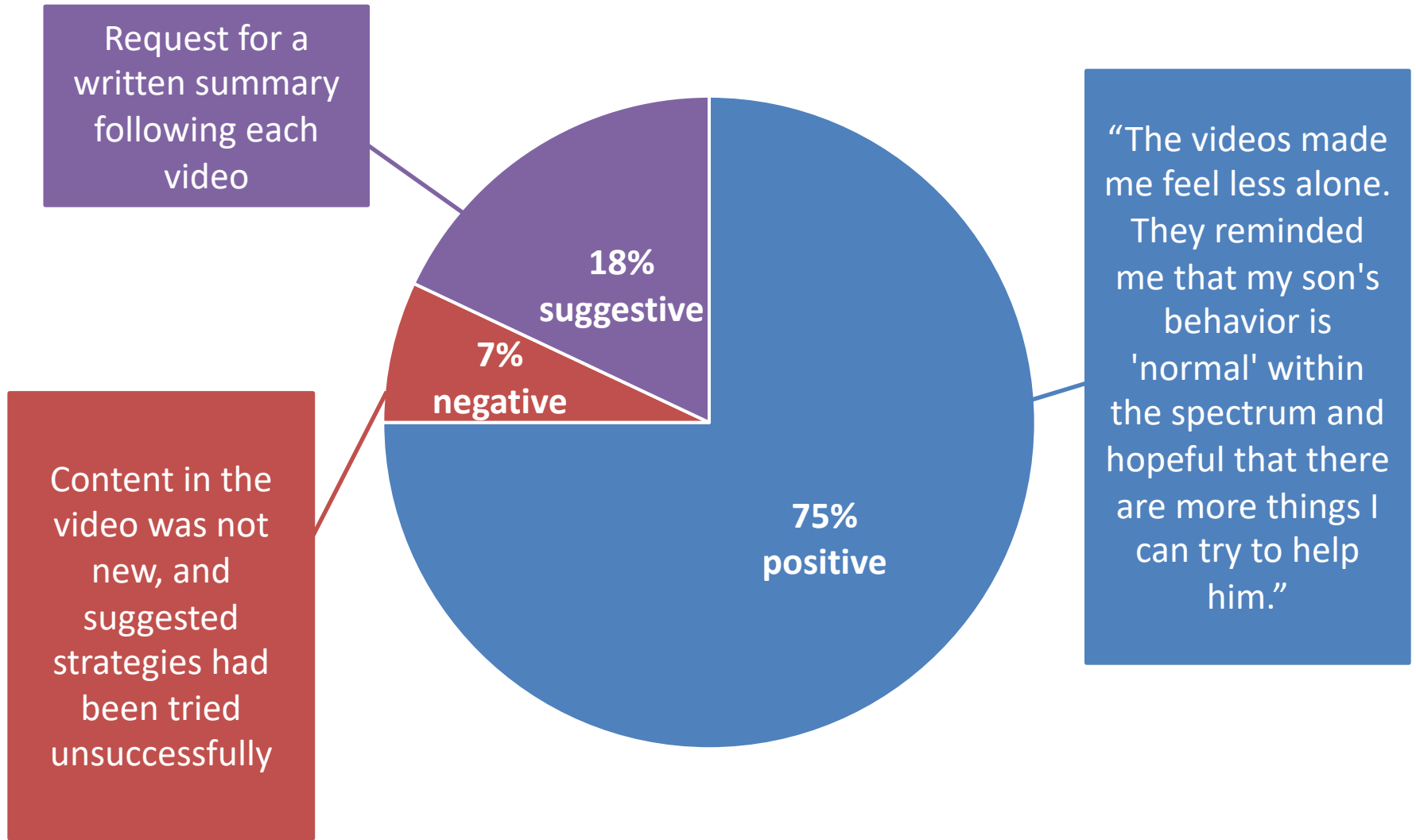


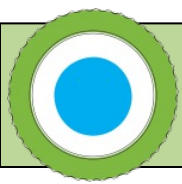
# Evaluation: Results



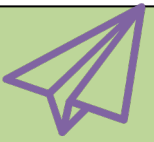


# Evaluation: Feedback





# Dissemination



YouTube

parent resources unstuck and on target



## Understanding Executive Functioning



Unstuck And On Target  
943 subscribers

Subscribe



Share

Download



34 views 4 weeks ago Parent Resources

All From Unstuck And On Target Courses



**Entender Funcionamiento Ejecutivo**  
Unstuck And On Target  
11 views · 4 weeks ago  
3:05



**Compromising So Everyone Wins**  
Unstuck And On Target  
9 views · 4 weeks ago  
3:33



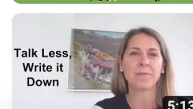
**Troubleshooting: What Next?**  
Unstuck And On Target  
2 views · 4 weeks ago  
3:48



**Managing Intense Feelings**  
Unstuck And On Target  
28 views · 3 weeks ago  
3:00

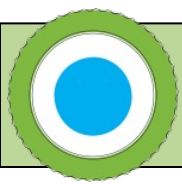


**Expect the Unexpected and Managing Disappointment**  
Unstuck And On Target  
15 views · 4 weeks ago  
3:07



**Talk Less, Write it Down**  
Unstuck And On Target  
4 views · 4 weeks ago  
5:13





# Conclusions

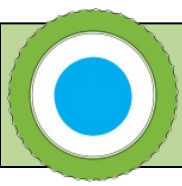
60 minutes of content total, freely available at any time

Associated with positive preliminary outcomes

Highly appraised by caregivers

Community-informed content

Transdiagnostic implications



# Utilizing *Unstuck and On Target* in an Outpatient Clinic

Safer-Lichtenstein, J., Barnes, J., & Anthony, L.

This work was supported by a postdoctoral training grant for Dr. Jonathan Safer-Lichtenstein, Grant Number T32 MH015442. No conflicts to disclose.



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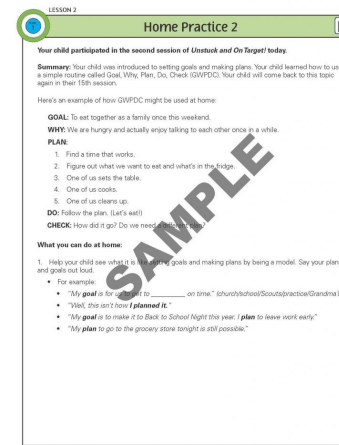
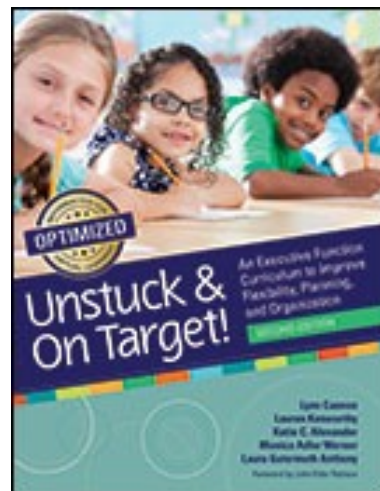


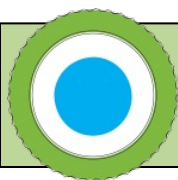
**Children's National.**



# Background

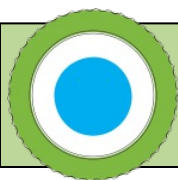
- Unstuck manualized program is twenty-one 30-45 minute lessons designed for schools
- Adapted for clinic setting to ten 90-minute sessions
  - Two lessons per week with short break in between
- Optional parallel ten 60-minute weekly virtual sessions for caregivers





# Child sessions

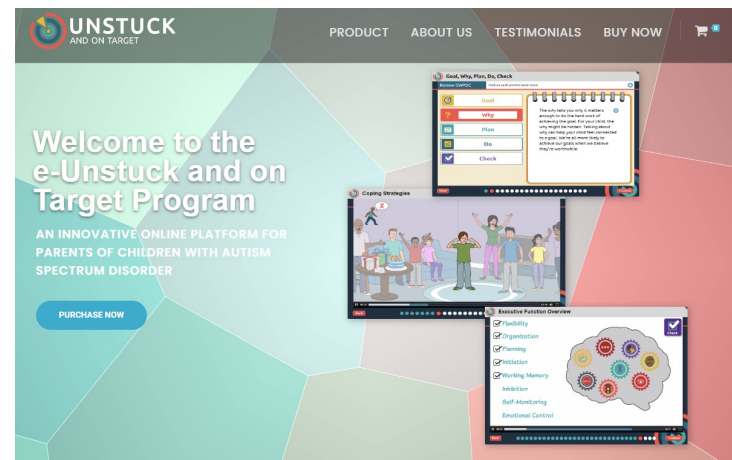
Session	Lessons	Theme
1	Lesson 1: Get to know the group Lesson 2: Introduction to Goal, Why, Plan, Do, Check	Foundation skills
2	Lesson 3: Emotion identification Lesson 4: Coping strategies	Foundation skills
3	Lesson 5: Flexibility investigation Lesson 6: Being flexible with our minds	How to be flexible
4	Lesson 7: Getting stuck Lesson 8: Plan A and Plan B	How to be flexible
5	Lesson 9: Compromising Lesson 10: Big Deal/ little deal	How to be flexible
6	Lesson 11: Choice vs. no choice Lesson 12: Expect the unexpected	How to be flexible
7	Lesson 13: Advantages of being flexible Lesson 14: Flexible reputation	Why be flexible
8	Lesson 15: Setting and achieving goals Lesson 16: Goal/Why/Plan/Do/Check application	Your goals: getting what you want
9	Lesson 17: Goal/Why/Plan/Do/Check practice Lesson 18: Event planning	Your goals: getting what you want
10	Lesson 19: Review game Lesson 20: Celebration	Your goals: getting what you want



# Parent sessions

1	 Introduction
2	 Executive Function Overview
3	 Can't, Not Won't
4	 Accommodate
5	 Motivate
6	 Words That Build Flexibility
7	 Identifying Feelings
8	 Coping Strategies
9	 Goal, Why, Plan, Do, Check
10	 Integration

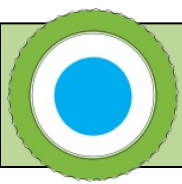
Derived from e-Unstuck;  
(Kenworthy et al., 2022)  
<https://doi.org/10.1177/13623613221111212>



# Measures

- Attendance
- Behavior Rating Inventory of Executive Function (BRIEF-2)
  - Informant-completed 63 items rating EF behaviors
  - Behavior, Cognitive, & Emotion Regulation indices, and Global Executive Composite score
- Parent acceptability form
  - 8 total questions
  - 6 Likert scale questions and 2 open-ended
- Child acceptability form
  - 5 total questions
  - 3 Likert scales questions and 2 open-ended



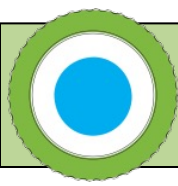


# Participants

24 children aged 8-11 years old over 3 cohorts

Variable	Mean (SD)
Age	9.17 (1.31)
BRIEF GEC*	74.92 (5.78)
Percentage	
Gender (male)	83.3%
Race/ethnicity (non-Hispanic White)	70.8%
Diagnosis	
ASD only	4.2%
ADHD only	45.8%
ASD and ADHD	45.8%
Other DD	4.2%

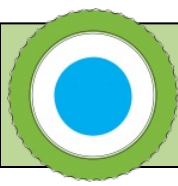
\*BRIEF GEC *t*-scores  $\geq 70$  considered clinically elevated



# Attendance

- Children attended majority of sessions
  - $M = 8.00, SD = 1.93$
  - 96% attended at least 5 of 10 sessions, 83% attended at least 7 sessions
- Caregivers of 20 out of 24 children chose to also participate in (optional) virtual caregiver sessions
  - $M = 8.10, SD = 2.02$
  - *95% attended at least 5 of 10 sessions, 75% attended at least 7 sessions*

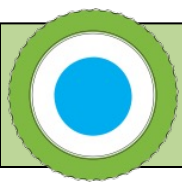




## Child acceptability

Three items rated on 3-point Likert scale (1 = not at all, 2 = a little bit, 3 = a lot)

- How much did you enjoy the groups?
  - $M = 2.50, SD = 0.52$
- How much have the skills you learned in group helped you in school?
  - $M = 2.31, SD = 0.70$
- How much have the skills you learned in group helped you at home?
  - $M = 2.50, SD = 0.63$

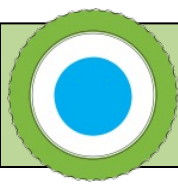


# Caregiver feasibility/ acceptability

- Six Likert scales items from 1 (not at all) to 5 (very much)
- Only 15 of 24 completed
- Total feasibility/acceptability:  $M = 25.62$ ,  $SD = 2.99$







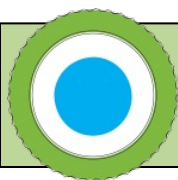
## Caregiver feasibility/ acceptability

“Flexibility has greatly improved along with his self-regulation of identifying his feelings. Using terminology we both understand has helped a lot.”

“I highly recommend doing both groups. I am unsure what my child would have retained without me attending caregiver training.”

“[I have observed improvements] mainly in flexibility. He still has a way to go but just him using the common language is huge.”

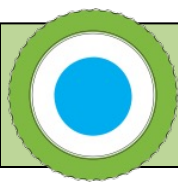
“[Child’s name] seemed to really enjoy group. It is hard to hold his attention and get new concepts to stick but he seemed excited and engaged.”



# Caregiver EF ratings

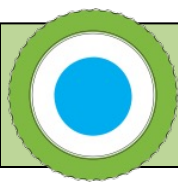
- 17 caregivers completed BRIEFs pre- and post- intervention
- Use Hedge's  $g$  due to small sample size
- Participants were rated as improving (small to medium effect sizes) based on  $t$ -scores for:
  - Behavior Regulation Index ( $g = 0.22$ )
  - Emotion Regulation Index ( $g = 0.41$ )
  - Cognitive Regulation Index ( $g = 0.35$ )
  - Global Executive Composite ( $g = 0.34$ )

Index/scale
Inhibit
Self-Monitor
<b>Behavior Regulation Index (BRI)</b>
Shift
Emotional Control
<b>Emotion Regulation Index (ERI)</b>
Initiate
Working Memory
Plan/Organize
Task-Monitor
Organization of Materials
<b>Cognitive Regulation Index (CRI)</b>
<b>Global Executive Composite (GEC)</b>



# Discussion

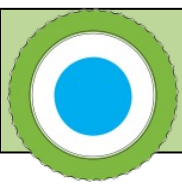
- Good attendance, acceptability ratings from caregivers and children
  - All parents rated themselves very much likely to recommend the program
  - 80% of parents said the program moderately or very much improved their child's EF
- Only 71% post-intervention measure completion rate
  - Hard without compensating participants
- Small-to-medium change on the BRIEF
  - Short time period to assess pre-post change
- Not a clinical trial (no comparison group)



# Future directions

- Experimenting with fewer sessions
  - Summer group: 8 child and 4 parent (90-minute) sessions
- Piloting caregiver portion in Spanish
- Utilize more systematic data collection and/or control group
- Longer delay to follow-up to allow more time to develop skills





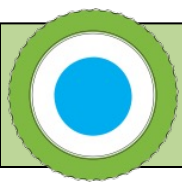
# Overall Summary & Discussion

## *Unstuck* executive function intervention

- Transdiagnostic
- Low-cost
- High impact
- Accessible
- Adaptable

## Next steps

- Randomized trials: pre-K, clinic, parent videos
- Iterative refinement to remove implementation barriers
- Identify critical elements, minimal doses
- Expand translations
- Enhance dissemination strategies



# Website: unstuckandontarget.com



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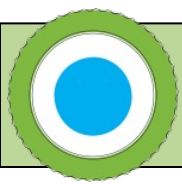
## Unstuck and On Target

**Asynchronous online educator training with FREE 3.5 CEU credits!**  
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What is *Unstuck*?

Who is *Unstuck* for?  
Does it Work?

How Can I Learn  
*Unstuck*?



More *Unstuck* on our website!

