Implementing Innovations for Students with Disabilities: Lessons from Education Innovation and Research Grantees

March 29, 2023



# WELCOME AND INTRODUCTIONS



## **Facilitator**



Dr. Jenni Liveoak Research Scientist AnLar, LLC



## **Expert Panelists**



Dr. Jennifer Coffey
Education Program Specialist,
Office of Special Education
Programs,
U.S. Department of Education



**Dr. Ashley Brizzo**U.S. Department of Education
Education Innovation and
Research (EIR) Group Leader



## **Grantee Panelists**



**Dr. Jodi Asbell-Clarke**Co-Founder and Director,
EdGE and TERC



Teon Edwards
Co-Founder & Director of
Development,
EdGE and TERC



**Dr. Sarah Arden**Senior Researcher
American Institutes of
Research



## **DISCUSSION OBJECTIVES**

- Increase awareness of various approaches to including students with disabilities in innovative education projects.
- Understand current research in the field as well as common implementation themes.
- Garner inspiration for project ideas and adaptations for consideration.



## **AGENDA**

Time	Activity
1:30	Welcome and Introductions
1:35	Opening Comments
1:40	Objectives and Overview
1:45	Panel Discussion and Q&A
2:50	Resources



Snapshot of Learning and Attention Issues in the U.S.



children in the U.S. have learning and attention issues.



Only a *small subset* receive specialized instruction or accommodations...

public school students have Individualized Education Programs (IEPs) for specific learning disabilities (SLD) such as dyslexia and for other health

impairments (OHI) such as

1 in 50

public school students receive accommodations for disabilitie through a civil rights statute called Section 504

...while millions of children with learning and attention issues are *not formally identified*.

#### What are Learning and Attention Issues?

Learning and attention issues are brainbased difficulties in reading, writing, math, organization, focus, listening comprehension, social skills, motor skills or a combination of these. Learning and attention issues are not the result of low intelligence, poor vision or hearing, or lack of access to quality instruction.

#### **Common Examples**

Learning disabilities, such as:

- Dyslexia
- Dyscalculia
- Dysgraphia

Other difficulties that affect learning and behavior, such as:

- ADHD
- Executive function deficits
- Dyspraxia
- Nonverbal learning disabilities

#### **Risk Factors**

#### **GENETICS**

Learning and attention issues tend to run in families. Genes that can affect brain structure and chemistry get passed down from parent to child.

#### **TOXIN EXPOSURE**

Exposure to lead and other environmental factors have been linked to ADHD and other issues that impact learning, attention and behavior.

#### ADVERSE CHILDHOOD EXPERIENCES

Trauma, such as abuse, neglect, and other adverse childhood experiences, can increase the likelihood of being identified with learning or behavior issues.





## Challenges for Students with Disabilities

- Inaccessible conditions, physical or social barriers to classroom inclusion, and lack of proper accommodations necessary to achieve equitable learning opportunities.
- Potential outcomes include poor academic success rates; emotional issues; and negative student behaviors, such as class disruptions, dropping out, and suspensions.



## What can we do?

- Incorporate individualized support for students
  - Personalized instruction creates the opportunity to test out unique approaches to specific areas of need.
- Engage families and communities
  - Families are often key advocates to understand learning needs and brainstorm innovative solutions.
- Support teacher growth and development
  - Teachers deepened and broadened expertise in a variety of learning strategies can be useful for all types of students.

## Questions our grantee panel considered

- ☐ Tell us about your project. What are you doing and who are the students, teachers, schools, or communities you are serving? In what student populations has your program, or parts of your program, been implemented?
- ☐ How did you design your program to specifically meet the needs of students with disabilities?
- ☐ Are there any resources or tools that helped inform the approach you are taking?
- ☐ How are you promoting equity in your program?
- ☐ What successes have you had designing and implementing a program for students with disabilities?
- ☐ How have you addressed any challenges you've faced?



# LET'S HEAR FROM OUR EXPERTS



# Dr. Jennifer Coffey



"A student who graduated recently told me his mentor called him every morning as his alarm clock to make sure that he was getting up to come to school, and he told us that helped him more than anything. He did not ever have someone to wake him up and get him going. You know, he is the first person in his family to graduate, and he is going to take his family on a new path now."

One Student's Story





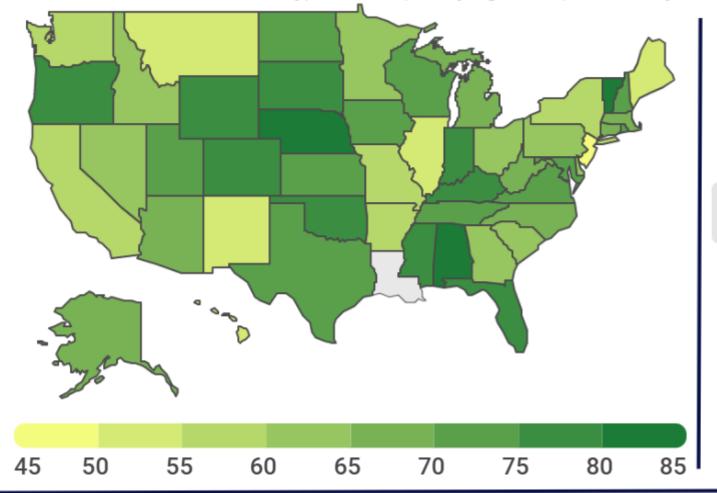
#### 'Miles Ahead': St. Paul Tracks Recovery Spending, Adjusts Programs on the Fly

#### ARP Strategies: Effective and Culturally Responsive Saint Paul Instruction Click on a strategy's name to learn more about the strategy and to highlight its Return to Home locations. Strategy Locations Strategies Strategy Name Budget (FY23) Falcon Heigh Oakdale Special Education (ECSE) Elementary Specialists and Jobint Pau Embedded Pro.. Landfall Equitable Middle \$94,942 School Career Experiences Lilydale School Level High School Credit Early Childhood K-12 Recovery Support K-5, 5-8, K-8 6-8 6-12 & 9-12 Instructional © 2022 Mapbox © OpenStreetMap Design for Strategy Details Culturally

Is part of a larger story...

# OSEP Fast Facts: Educational Environments of Children with Disabilities, Ages 5 (in kindergarten) through 21, Served under IDEA Part B

Percentage of Students with Disabilities, Ages 5 through 21, Receiving Services Inside a Regular Class 80% or More of the Day, in the US, Outlying Areas, and Freely Associated States: SY 2020-21



In SY 2020-21, 66.17% of all school aged children, served under IDEA, Part B, received services inside a regular class 80% or more of the day.

Alabama









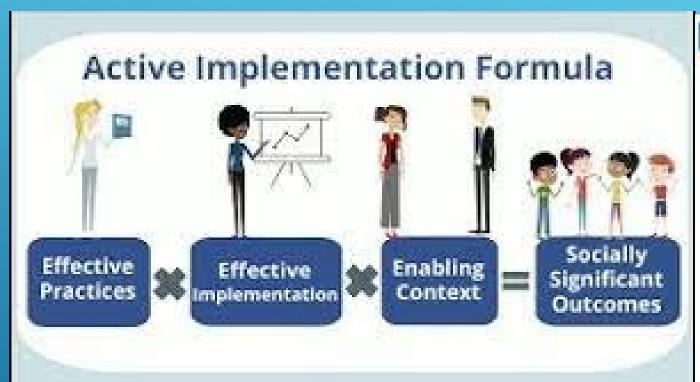


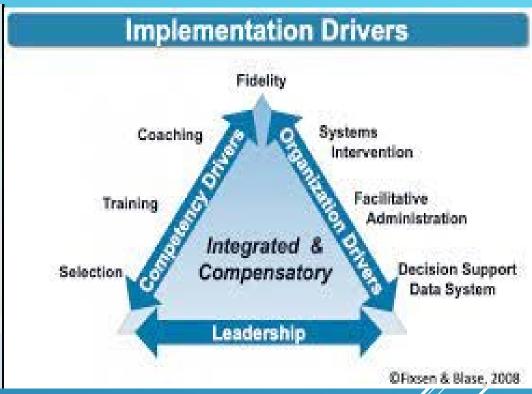
Center	Purpose	Link
Progress Center	Supports high-quality educational programming for students with disabilities that ensures access to free appropriate public education (FAPE) and progress toward appropriately ambitious goals	promotingprogress.org
National Center on Intensive Intervention	Provides a system for intensifying academic and behavioral interventions.	NCII.org
SWIFT Center	Supports inclusion of students with disabilities	SWIFTschools.org





National Technical Assistance Center on Transition (NTACT)	Transition from HS to college & career	TransitionTA.org
National Center for Improving Literacy (NCIL)	Literacy learning, resources, & guidance for families, districts, schools, & states	ImprovingLiteracy.or g
Lead for Literacy (L4L)	Guiding elementary school and district leaders to improve literacy teaching and learning outcomes for all students.	leadforliteracy.org
Center on Positive Behavioral Interventions & Supports	Improve conditions and behavior supports in schools.	PBIS.org





**Implementation Supports: SISEP** 



- **UDL**
- Explicit Instruction
- Peer tutoring
- Positive Behavioral Interventions & Supports
- Closed Captioning
- Mnemonic Instruction
- Read 180
- Progress Monitoring
- Universal Screening

What do all of these evidence-based strategies have in common?

# Dr. Ashley Brizzo



"My heart is singing for joy this morning! A miracle has happened! The light of understanding has shone upon my little pupil's mind, and behold, all things are changed!" -Anne Sullivan

- Students with disabilities should be included in innovation.
- Unique needs necessitate innovative approaches.
- ▶ Effective practices can be replicated with all learners.
- Careful diligence is needed when testing new ideas.

# Education Innovation and Research Considerations



# GRANTEE EXPERIENCES



INFACT: Including Neurodiversity in Foundational and Applied Computational Thinking in Grades 3-8

Dr. Jodi Asbell-Clarke Teon Edwards







Learning activities for inclusive classrooms (≤20% IEPs) in grades 3-8

Broad variety of foundational CT activities with games, puzzles, robotics, coding, and "get up and go" activities

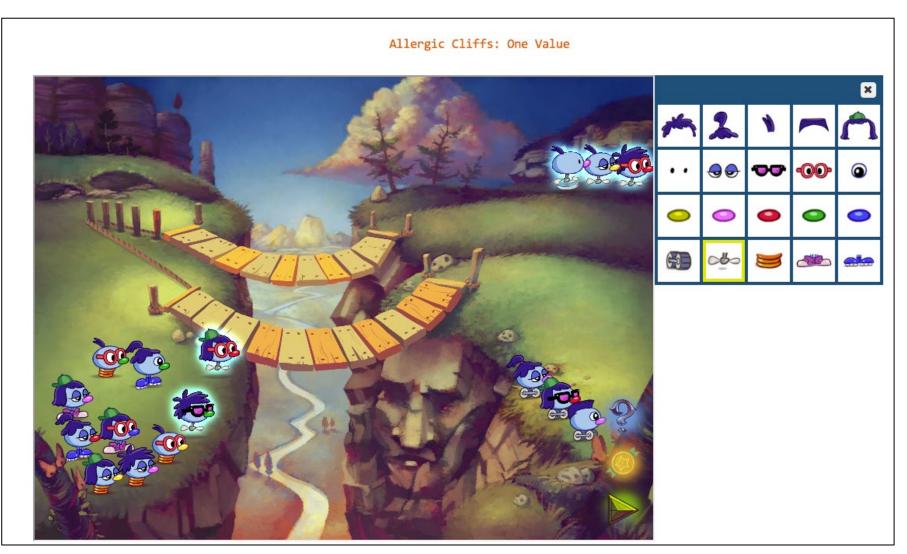
Embedded supports for executive function





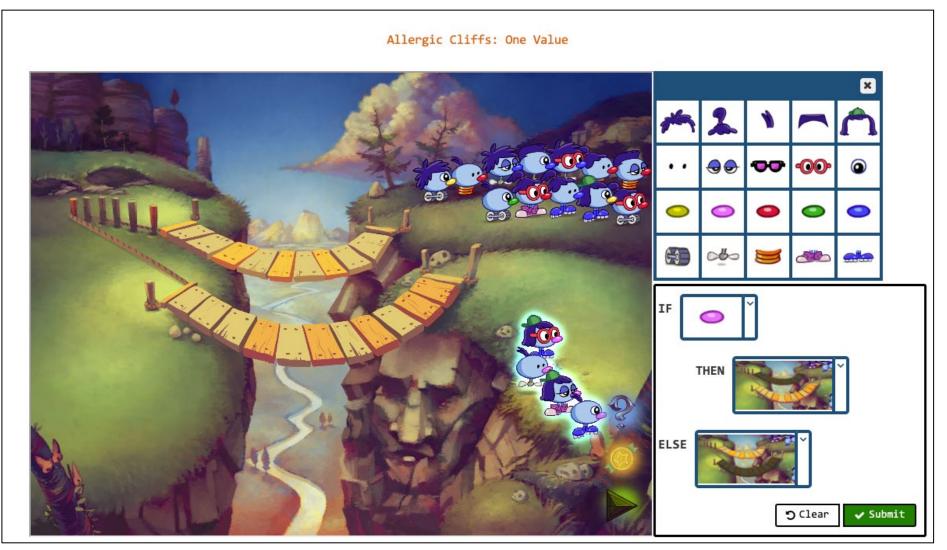






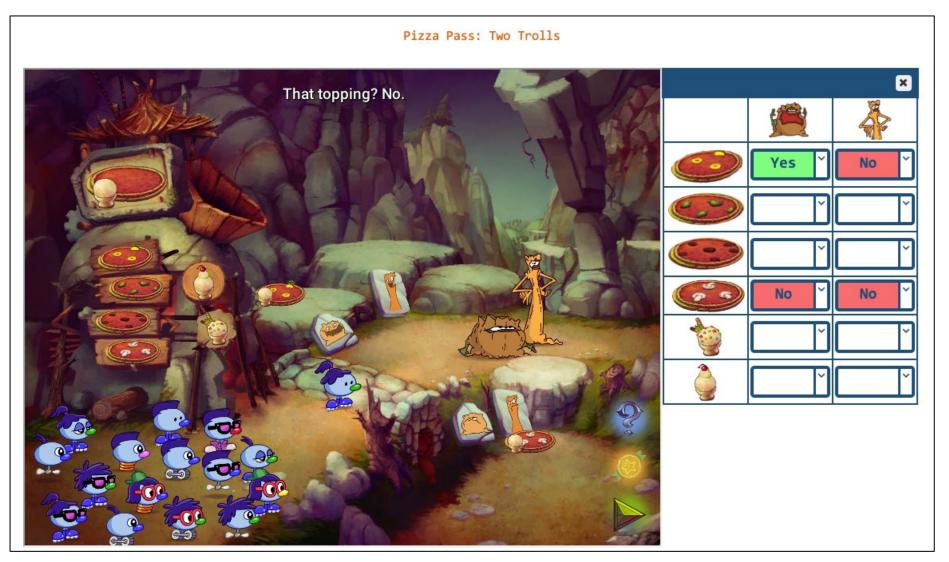


















- I can identify a repeat loop.
- I can identify a nested repeat loop.
- I can create a set of commands with a repeat loop.
- I can create a set of commands with a nested repeat loop.
- I can write/express dance moves using a repeat loop.
- I can write/express dance moves using a nested repeat loop.

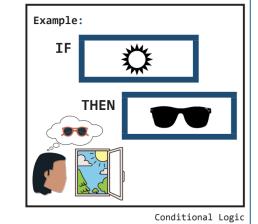


#### Set Up for Success

- Model gameplay before having learners play or allow learners to watch another pair/small team for the first several rounds of the activity before trying it on their own.
- Suggest an additional learner join each pair or team to be a "troubleshooter." This learner can see both the pre-assembled structure and the loose pieces. They can provide "hints" when needed and/or provide guidance for how to give and/or ask clarifying questions (without giving too much away!).
- Use the Key Terms list to identify Word Cards for learners who may need additional support with vocabulary in the activity.

#### conditional logic

A way to decide what happens **IF** something is TRUE or FALSE





MINFACT ©TERC 2021



#### **Efficacy Study**

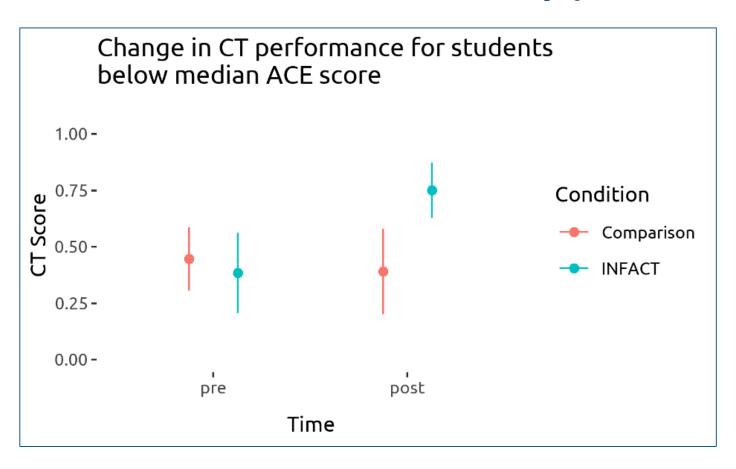
**Results:** In a study of 659 elementary students, average CT scores for students in classes using INFACT were one-third of a standard deviation higher ( $\beta$  = 0.32) higher than average scores for students in classes using other CT programs (p = 0.03).

Sample of same size would have a 55% chance of reproducing the same results.





#### **Neurodiversity (Executive Function) Study**



Results: Students who scored below the median on the EF screener pretest times (ACE) showed significant gains from pre to post on the CT assessment (IACT).





#### **Contact Us**

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## Dr. Sarah Arden

Senior Researcher
American Institutes of Research



# Using Intensive Intervention to Improve Mathematics Skills of Students with Disabilities

- EIR Early Phase Previously Investing in Innovation and Improvement Development Grant, US Department of Education (priority three, subpart A)
- Implementing and evaluating a coherent system of support using the DBI approach in mathematics
- Appropriately coordinate and integrate, and improve the quality of service of programs for students with disabilities (SWDs) and their families

## **Project Aims**

The project will coordinate and integrate system supports to:

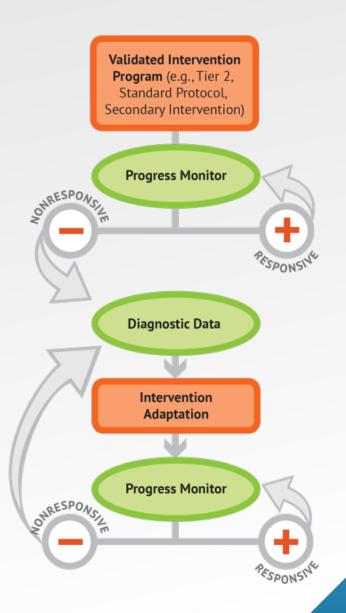
- address students' individual needs
- strengthen mathematics instruction
- increase mathematics achievement among students with severe and persistent learning needs, particularly SWDs
- improve the quality of special education programs for students and families



## Why Intensive Intervention?

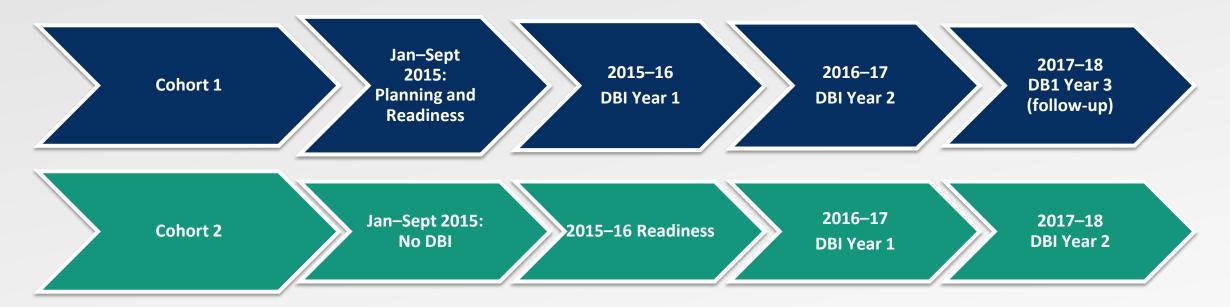
Intensive intervention (Data-based individualization) is designed to address severe and persistent learning or behavior difficulties. Intensive interventions should be:

- (a) Driven by data
- (b) Characterized by increased intensity (e.g., smaller group, expanded time) and individualization of academic instruction and/or behavioral supports





## Timeline & Project Design



This design allows us to make three primary comparisons:

- DBI Year 1 in Cohort 1 and No DBI in Cohort 2;
- DBI Year 2 in Cohort 1 and No DBI in Cohort 2; and
- DBI Year 3 (i.e., the follow-up) and No DBI in Cohort 2.



# QUESTIONS?



#### **RESOURCES**

#### From The U.S. Department of Education

- **EIR Program** <a href="https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/">https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/</a>
- EIR Discretionary Grant Program <a href="https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2023-competition/">https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/education-innovation-and-research-eir/fy-2023-competition/</a>
- For other ideas from i3 projects <a href="https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/investing-in-innovation-i3/">https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/innovation-early-learning/investing-in-innovation-i3/</a>
- WWC Early Childhood Instruction https://ies.ed.gov/ncee/wwc/earlychildhoodinstruction3
- WWC Evidence Snapshot: Repeated Reading https://ies.ed.gov/ncee/wwc/EvidenceSnapshot/576



#### RESOURCES<sub>(2)</sub>

#### From Dr. Jennifer Coffee, The Office of Special Education Programs (OSEP)

- CEEDAR Center for High Leverage Practices <a href="https://ceedar.education.ufl.edu/high-leverage-practices/">https://ceedar.education.ufl.edu/high-leverage-practices/</a>
- **The74** <a href="https://www.the74million.org/article/miles-ahead-of-other-districts-using-new-dashboard-st-paul-tracks-learning-recovery-spending-and-adjusts-programs-on-the-fly/">https://www.the74million.org/article/miles-ahead-of-other-districts-using-new-dashboard-st-paul-tracks-learning-recovery-spending-and-adjusts-programs-on-the-fly/</a>
- High Level Practices for Students With Disabilities https://highleveragepractices.org/four-areas-practice-k-12/instruction
- OSEP Fast Facts: Educational Environments of School Aged Children with Disabilities -<a href="https://sites.ed.gov/idea/osep-fast-facts-educational-environments-school-aged-children-disabilities/">https://sites.ed.gov/idea/osep-fast-facts-educational-environments-school-aged-children-disabilities/</a>
- State contact/help for families: <a href="https://www2.ed.gov/policy/speced/guid/idea/monitor/state-contact-list.html">https://www2.ed.gov/policy/speced/guid/idea/monitor/state-contact-list.html</a>
- State Parent Training and Information Centers: https://www.parentcenterhub.org/find-your-center/



#### RESOURCES<sub>(3)</sub>

#### From Panelist Dr. Jodi Asbell-Clarke and Teon Edwards, EdGE and TERC

- INFACT Sample Activities: <a href="https://www.terc.edu/edge/infact\_materials/">https://www.terc.edu/edge/infact\_materials/</a>
- Zoombinis General: <a href="https://www.terc.edu/edge/games-for-learning/zoombinis/">https://www.terc.edu/edge/games-for-learning/zoombinis/</a>
- INFACT Mid-Phase https://www.terc.edu/edge/mid-phase/



#### RESOURCES<sub>(4)</sub>

#### From Panelist Dr. Sarah Arden, American Institutes of Research (AIR)

- National Center on Intensive Intervention https://intensiveintervention.org/search?keywords=I3+Development+Grant+on+Intensive+Intervention+in+Mathematics
- Using Intensive Intervention to Improve Math Skills Evaluation report outlining participants - <a href="https://files.eric.ed.gov/fulltext/ED603459.pdf">https://files.eric.ed.gov/fulltext/ED603459.pdf</a>
- Building School/Family Partnerships https://journals.sagepub.com/doi/abs/10.1177/0040059920937733?journalCode=tcxa
- Progress Center / Classroom Belonging https://promotingprogress.org/resources/stories-classroom-finding-belonging
- Progress Center / Parent Tip Sheet https://promotingprogress.org/resources/parent-tip-sheet-overview-iep

# THANK YOU!

