

### Pyramid Model Implementation in Wisconsin: Our story through data

### Children's Social Skills Impact Success in Adulthood

For every 1-point decrease in kindergarten social competence:

- 67% higher chance of having been arrested by early adulthood
- 52% higher rate of recent binge drinking and
- 82% higher chance of being in or on a waiting list for public housing

For every point increase in kindergarten social competence:

- Twice as likely to attain a college degree in early adulthood;
- 54% more likely to earn a high school diploma; and
- 46% more likely to have a full-time job at the age of 25

### Why Worry about Preschool Behavior?

- Preschool expulsion rates are 3 times higher than K-12 expulsion rates.
- Boys are 4.5 times more likely than girls to be expelled
- African American children are twice as likely to be expelled than white or Latino children and 5 times more likely than Asian American children.
- Expulsion rates for 5 year olds are double rates for 4 year olds.

Enrollment, Expulsion & Resource Use in Wisconsin Child Care

Expulsions and Removals

No children expelled/removed – 71%  
Children expelled/removed – 29%

Overall Rates:  
6.5 per 1000 expelled (< 1% of total)  
4.9 per 1000 removed (< 1% of total)

Higher expulsion rates for:  
5 year olds  
Boys  
Black children  
Children with subsidy

<https://df.wisconsin.gov/files/ecac/2017/suspensionexpulsionecac.pdf>

Gillam, W. (2005). Prekindergarten's Left Behind: Expulsion Rates in State Prekindergarten Systems. Yale University Child Study Center.

### Disparities persists: Wisconsin's has the lowest "well-being" scores for African American children

(Race for Results Report; March 2014; Annie E. Casey Foundation)

Race for Results Index (2014) 46<sup>th</sup> of 46 states  
A State-to-State Comparison of African-American Children

Well being factors: High school Graduation, Delayed childbearing, School or work, Low poverty areas, Normal birth weight, Two-parent families, Math proficiency, Above 200% of poverty, Family Education, Preschool enrollment, Reading Proficiency

[http://www.wccf.org/assets/Race-for-Results\\_web.pdf](http://www.wccf.org/assets/Race-for-Results_web.pdf)

### Wisconsin's rates

4K Discipline: Race

Percentage of Students Suspended by Race (2010-11 to 2012-14)

The suspension rate of Black students far exceeds any other racial groups

<http://dpi.wi.gov/sites/default/files/mocs/early-childhood/pdf/autocommittee4kpresentation2016.pdf>

State	Rate
Wisconsin	11.8%
Oklahoma	9.7%
Iowa	9.4%
Pennsylvania	9.1%
California	8.6%
Indiana	8.4%
Louisiana	8.2%
Texas	8.1%
Colorado	7.7%
Kansas	7.7%
U.S. national average	6.7%
Mississippi	1.2%
Missouri	1.3%

<http://www4.uwm.edu/eti/2013/BlackImprisonment.pdf>

### Program-wide implementation: Implementation with fidelity

Implement 9 Critical program Elements to fidelity; measured by Benchmarks of Quality

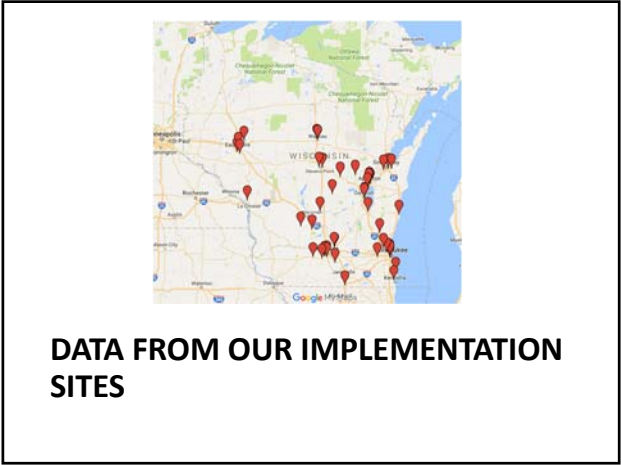
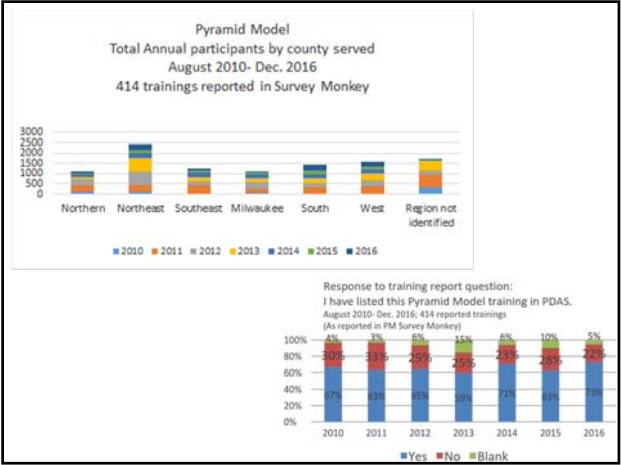
Internal coach supports teachers to reach fidelity in practices defined/measured by:

- TPOT
- TPITOS

Leadership Team and coaches use:

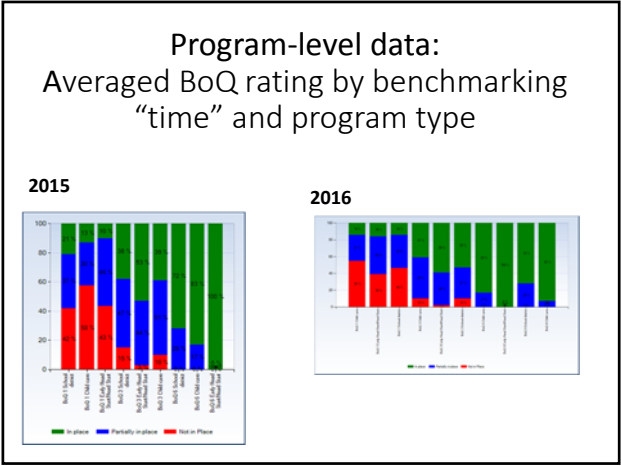
- Behavior Incident Reports
- Measure of child outcomes: ASQ:SE(2)
- Parent survey
- Benchmarks of Quality
- TPOT/TPITOS





**Critical Program Elements**

1. Establish leadership team
2. Staff Buy-in
3. Family Involvement
4. Program-wide expectations
5. Strategies for teaching expectations
6. All classrooms demonstrate adoption of "Teaching Pyramid"
7. Procedures for responding to challenging behavior
8. Staff Support Plan
9. Monitoring implementation and outcomes



"I couldn't teach another way if I tried"

**Teacher-level**

- 79 teachers and counting at TPOT fidelity

**Sample of cumulative TPOT data**

79 teachers X 13 children = 1,027 children

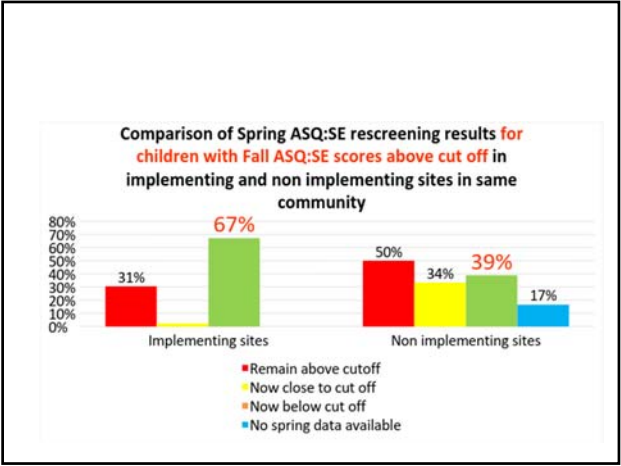
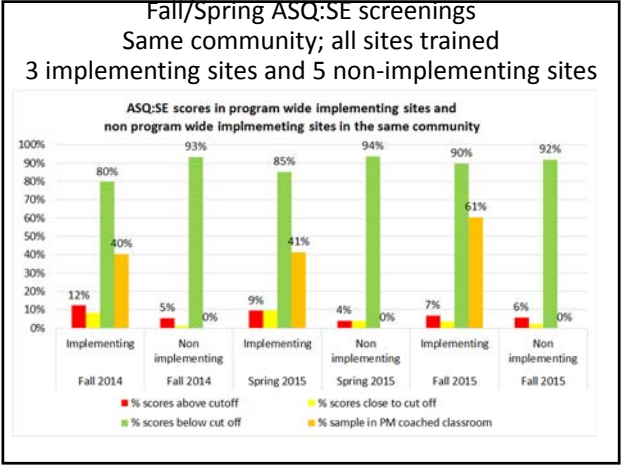
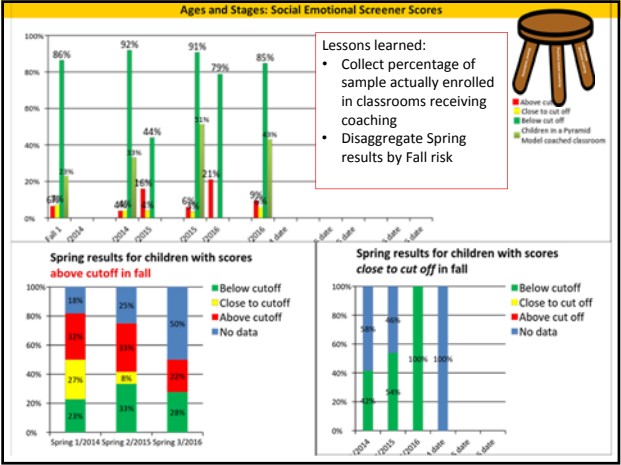
**State level use of the TPOT data**

**Plans**

- Analyze TPOT data by item to spot **quick to move** and **slow to move** items
  - Reassurance
  - Targeted professional development materials

**Red Flags Noted out of the 91 TPOTS**  
The top 5 are highlighted.

number	% out of all notations	Red Flags Items
19	21%	23. The majority of the day is spent in teacher directed activities
24	26%	24. Many transitions are chaotic
22	24%	25. Teacher talk to children is primarily giving directions, telling children what to do, reprimanding children
15	16%	26. During group activities, many children are NOT engaged
11	12%	27. Teachers are not prepared for activities before the children arrive at the activity
20	22%	28. Children are reprimanded for engaging in problem behavior (use of "no," "stop," "don't") *
5	5%	29. Children are threatened with an impending negative consequence that will occur if problem behavior persists *
0	0%	30. Teacher reprimands children for expressing their emotions *
11	12%	31. Emotions are <u>not</u> generally discussed in the classroom *
20	22%	32. Teacher's guidance or focus around relationships is on adult-child interactions *
35	38%	33. Teacher gives group directions to all children in the same way *
13	14%	34. Teacher tells children mostly what <u>not</u> to do rather than what to do
2	2%	35. Teacher asks for the removal of children with persistent challenging behavior from the classroom or program
2	2%	36. Teacher comments about families are focused on <u>not</u> teacher-parent relationships and their impact



Using data to change behavior

Behavior incidents drop 70-98% from beginning implementation to fidelity

<input type="checkbox"/> Physical aggression	<input type="checkbox"/> Non-compliance	<input type="checkbox"/> Repetitive behaviors
<input type="checkbox"/> Deviant/antisocial behaviors	<input type="checkbox"/> Social withdrawal/isolation	<input type="checkbox"/> Hurling self
<input type="checkbox"/> Incomprehensible crying	<input type="checkbox"/> Running away	<input type="checkbox"/> Trouble falling asleep
<input type="checkbox"/> Verbal aggression	<input type="checkbox"/> Breaking/destroying objects or items	<input type="checkbox"/> Other...
<input type="checkbox"/> Inappropriate language	<input type="checkbox"/> Unsafe behaviors	
<input type="checkbox"/> Arrival	<input type="checkbox"/> Outdoor play	<input type="checkbox"/> Departure
<input type="checkbox"/> Circle/Large group activity	<input type="checkbox"/> Special activity	<input type="checkbox"/> Transition
<input type="checkbox"/> Small group activity	<input type="checkbox"/> Field trip	<input type="checkbox"/> Quiet time/nap
<input type="checkbox"/> Center/Indoor play	<input type="checkbox"/> Self-care/Bathroom	<input type="checkbox"/> Transportation
<input type="checkbox"/> Disappearing	<input type="checkbox"/> Transition	<input type="checkbox"/> Individual activity
<input type="checkbox"/> Clean-up	<input type="checkbox"/> Clean-up	<input type="checkbox"/> Other...
<input type="checkbox"/> Teacher	<input type="checkbox"/> Family Member	<input type="checkbox"/> Transportation driver
<input type="checkbox"/> Support/Administrative staff	<input type="checkbox"/> Aides staff	<input type="checkbox"/> None
<input type="checkbox"/> Substitute	<input type="checkbox"/> Classroom volunteer	<input type="checkbox"/> Other...
<input type="checkbox"/> Clean desired item	<input type="checkbox"/> Gain adult attention/comfort	<input type="checkbox"/> Avoid sensory
<input type="checkbox"/> Avoid adult attention	<input type="checkbox"/> Avoid task	<input type="checkbox"/> Don't know
<input type="checkbox"/> Avoid peers	<input type="checkbox"/> Avoid sensory	<input type="checkbox"/> Other...
<input type="checkbox"/> Verbal reminder	<input type="checkbox"/> Provide physical comfort	<input type="checkbox"/> Teacher contact family
<input type="checkbox"/> Redirect to different activity/day	<input type="checkbox"/> Curriculum modification	<input type="checkbox"/> Time out
<input type="checkbox"/> Move within group	<input type="checkbox"/> Research/Practice expected behavior	<input type="checkbox"/> Physical guidance
<input type="checkbox"/> Remove from activity	<input type="checkbox"/> Lists of activity	<input type="checkbox"/> Physical hold/Restrain
<input type="checkbox"/> Remove from area	<input type="checkbox"/> Time with a teacher	<input type="checkbox"/> Other...
<input type="checkbox"/> Remove from	<input type="checkbox"/> Time in a different classroom or adult outside of classroom	
<input type="checkbox"/> Not applicable	<input type="checkbox"/> Targeted group intervention	<input type="checkbox"/> Conditional enrollment
<input type="checkbox"/> Talk with child	<input type="checkbox"/> Temporary removal from classroom	<input type="checkbox"/> Transfer to another program
<input type="checkbox"/> Contact family	<input type="checkbox"/> Sent home for remainder of day	<input type="checkbox"/> Repeat hours in program
<input type="checkbox"/> Family meeting	<input type="checkbox"/> Sent home for 1 or more days	<input type="checkbox"/> Disposal from program
<input type="checkbox"/> Arranged behavioral consultation/visit	<input type="checkbox"/> Other...	

**Program-Wide Implementation Evaluation: Summary Conclusions**

**THE WISCONSIN PYRAMID MODEL: Enhancing Social-Emotional Competence to Reduce Challenging Behaviors**

**Introduction**

- Teachers in the Pyramid Model Program-Wide Implementation classrooms employed significantly more evidence-based practices in the classroom than those in the comparison classrooms. These differences were consistent across time.
- Students' reported problem behaviors decreased more in the Program-Wide classrooms than the reported problem behaviors of students in the comparison classrooms.
- The most vulnerable students' problem behaviors decreased more and their social skills increased more in the Pyramid Model classrooms than the reported behaviors of students in the comparison classrooms.
- All students in both groups of classrooms made moderate to strong progress across measures of early literacy.
- The most vulnerable students' early comprehension skill increased more in the Pyramid Model classrooms than the early comprehension skill of students in the comparison classrooms.

**Who Were the Participating Teachers?**

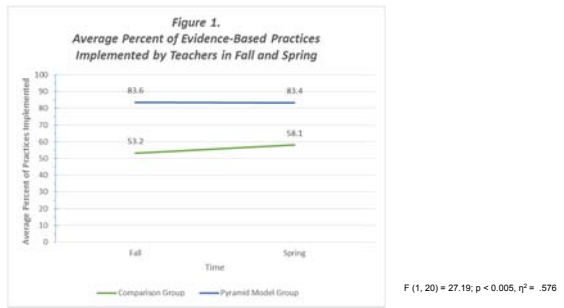
- Number of Participants:**
  - 22 female teachers of 4-K classrooms
    - 10 Pyramid Model Program-Wide Implementation Classrooms
    - 12 Comparison Classrooms
- Location of Participants:**
  - Two larger cities in Central Wisconsin
    - 5 Pyramid Model Classrooms and 6 Comparison Classrooms in each city
- Type of Classroom:**
  - 4 in Head Start Classrooms
  - 4 in Public School Buildings
  - 5 in Community Centers (e.g., Churches, YMCA)
  - 9 in Child Care Centers

### How Did They Differ?

	Pyramid Model Teachers	Comparison Teachers
Average Percentage of Practices Implemented Fall (TPOT <sub>1</sub> )	83.6	53.2***
Average Percentage of Practices Implemented Spring (TPOT <sub>2</sub> )	83.4	58.1***
Years Teaching in Early Childhood	8.3	7.3
Hours of Pyramid Model Training	36.1	13.1***
Hours of Pyramid Model Coaching	6.5	0.3*

\* Significantly different at  $p < .05$ ; \*\*  $p < .01$ ; \*\*\* Significantly different at  $p < .0005$

Teachers in the Pyramid Model Program-Wide Implementation classrooms employed significantly more evidence-based practices in the classroom than those in the comparison classrooms. \*\*\*

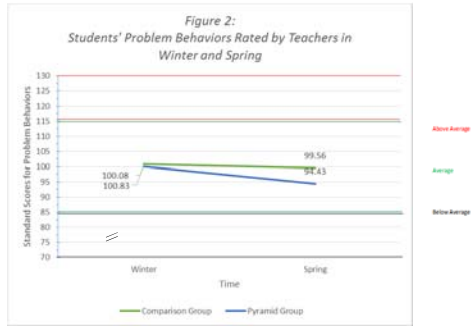


### Who Were the Participating Students?

	Male	Female	Total
Pyramid Model	28	22	50
Comparison	31	28	59
<b>Total</b>	<b>59</b>	<b>50</b>	<b>109</b>

No significant differences in gender or age (Avg. Pyramid Age = 4.36; Avg. Comparison Age = 4.34).

Students' reported problem behaviors decreased more in the Program-Wide classrooms than the reported problem behaviors of students in the comparison classrooms.\*

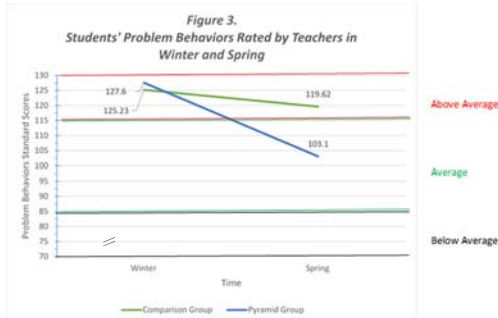


### Who Were the Most Vulnerable Participating Students?

	Male	Female	Total
Pyramid Model	7	3	10
Comparison	10	3	13
<b>Total</b>	<b>17</b>	<b>6</b>	<b>23</b>

More males than females overall. No significant differences in gender or age by group (Avg. Pyramid Age = 4.1; Avg. Comparison Age = 4.4).

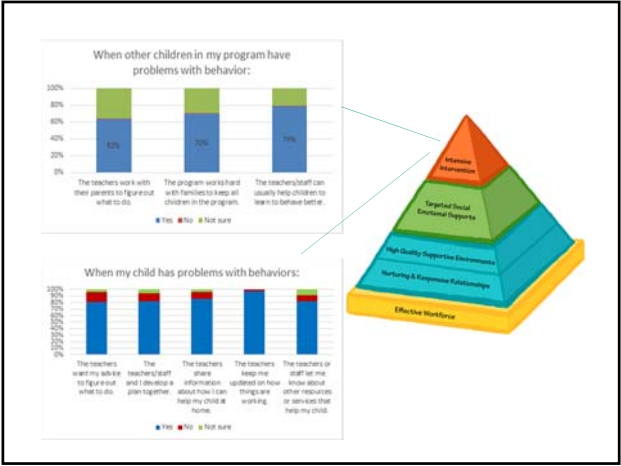
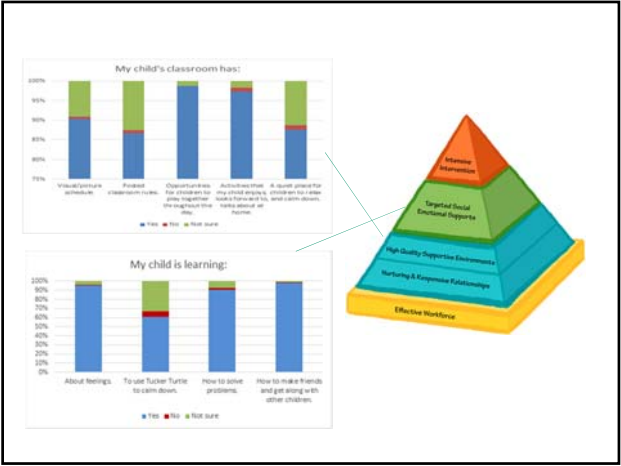
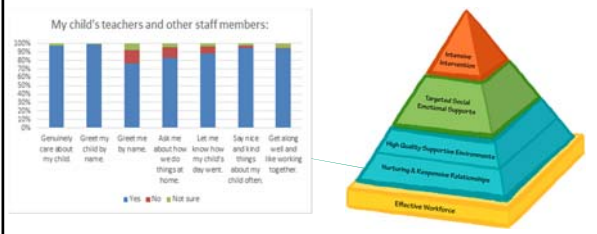
The most vulnerable students' problem behaviors decreased more in the Pyramid Model classrooms than the reported behaviors of students in the comparison classrooms.\*\*



### Target Student Participants' Early Literacy Skills

	Pyramid Model	Comparison
Picture Naming Pre-Test	10.1	9.31
Picture Naming Post-Test	9.9	9.08
Rhyming Pre-Test	11.00	12.15
Rhyming Post-Test	12.7	13.00
Sound Identification Pre-Test	8.2	7.62
Sound Identification Post-Test	10.3	9.69
Which One Doesn't Belong Pre-Test	5.7	8.39
Which One Doesn't Belong Post-Test	10.00*	9.77
Alliteration Pre-Test	10.9	12.08
Alliteration Post-Test	11.1	12.08

### Parent Survey- 723 respondents



### Parent Comments

- "They are not only aware of their own feelings but also how to treat others"
- "Empathy and respect for children different from her."
- "Learning how to make friends. Learning different ways for problem solving"
- "Matches elementary PBIS model. Child has been taught strategies to calm down and has repeated them at home. Speaks often about being a "super friend"
- "Helping him to satta talking more and when he doesn't get his way, better ways to help him calm down. Getting him more interactive with other children. Helping him learn how to ask for what he wants"
- "Teachers don't blame, they try to fix and understand"
- "I feel my daughter has grown greatly with her emotional and behavioral development since starting. I highly recommend this program to families"
- "André tiene Buenos beneficios como a convivir con sus amigos, aprende mas como los numeros, abecedario, a comunicarse, seguir las reglas de la escuela, etc. Andres aprendio mucho."
- "For my son, the biggest benefit is encouraging problem solving skills"
- "The program has done wonders for my child She was very shy and wouldn't talk to people at first. She has a wonderful teacher that took her under her wing and brought my daughter out of her shell. I couldn't be more happy"
- "Teaches children appropriate ways to deal with their emotions. We have used Tucker Turtle at home with my child!"
- "He has more social skills now. He loves the activities that they do and practices them at home too. He has improved so much educationally that the program has made me so happy for my son"
- "Learning how to form relationships with his peers, learning how to problem solve"
- "My child is learning to play well with others He is also learning to cope with being away from adults"
- "My child is learning how to express his feelings verbally"

### Parents Interacting with Infants (PIWI) WI implementation data

- Retrospective parent surveys
- Observational measure: Quality of Engagement
- Facilitator self-reflection form
- Community implementation survey (in progress)

Parents Interacting With Infants (PIWI)  
Quality of Engagement Measure

Rate each:

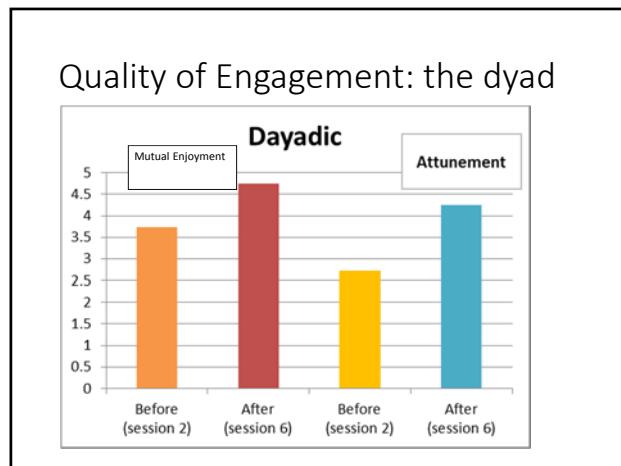
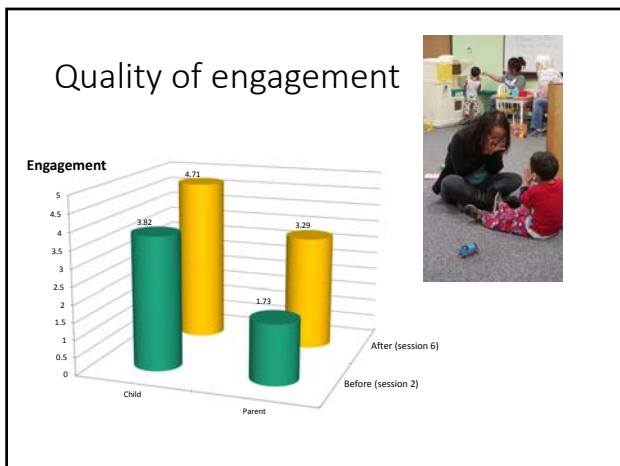
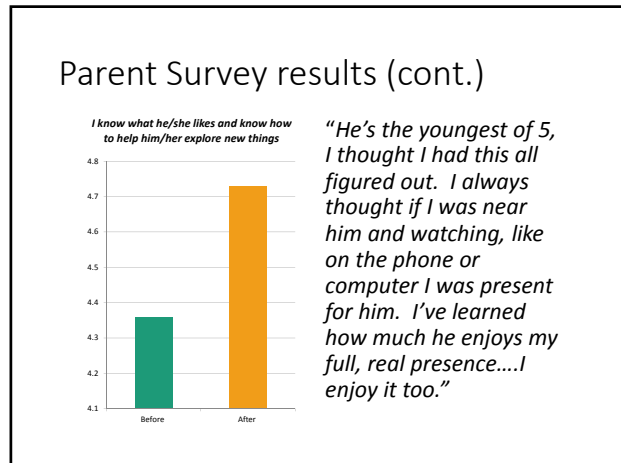
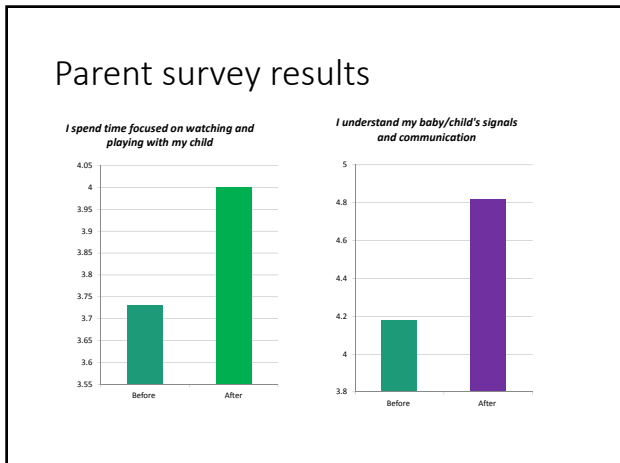
From the observations, indicate each item for 30 seconds. Record the predominant score for each parent each day for 10 days in one month. Do this for 10 parents during the 30 second interval. After 30 seconds stop in the next day. Continue for all 10 days and record in the spreadsheet each day in the next week for 10. Do not record interval if parent is not.

Quality of Engagement items being each 30 second interval:

- Respond (R)
- Intense (I)
- Transference (T)
- Preoccupied (P)

Engage (E) items being each 30 second interval:

- Engage (E)
- Working (W)
- Play (P)
- Not Engage (NE)



## Positive Solutions for Families

3 county study of parenting programs  
Wisconsin data

### 3 county study of parenting programs- PSF

*Extension* *UMRF*

**Table 7: Percent Parents Who "Increased" or "Increased a Lot" Their Use of Parenting Techniques by Program, 2016**

Technique	Home Visit	Baby & Me	Play & Learn	Positive Solutions
Patience with Child	45%	27%	31%	70%
Patience with Adults	36%	27%	20%	30%
Guide Child's Behavior	69%	67%	50%	80%
Prepare Child Prior to Going Out	45%	37%	35%	45%
Read to Child	61%	57%	32%	33%
Maintain Routines for Child	45%	40%	17%	28%
Comfort Upset Child	54%	47%	23%	56%
Listen Carefully to Child	59%	50%	33%	76%
Praise Good Behavior	61%	30%	45%	86%
Let Child Lead Playtime	61%	37%	45%	58%
Put Cell Phone Down to Listen to Child	53%	47%	31%	53%
Understand Behavior Related to Age/Development	71%	80%	61%	67%

- The data suggest that:
  - the vast majority of instructors covered all twelve of the agreed-upon parenting skills during the course of their workshop/home visits.
  - a majority of parents feel they had increased their use of all twelve of these skills, at least to some degree.
  - the programs seemed to have more significant impacts on the parenting skills of men, those of Hispanic heritage, and parents with less formal education. Because there were relatively few Hispanics and men in these programs, efforts to engage these populations in parenting programs in greater numbers might amplify their effectiveness.
  - all four programs appeared successful in inducing behavioral change among parents. However, **Positive Solutions stood out as having more significant increases in the use of many of these parenting skills.** The data don't provide insights into what factors make this program successful. Follow-up discussions with instructors in this program to try and discern the reasons for its effectiveness might be