



Positive Behavior Support for Toddlers with Challenging Behavior in Typical Routines

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Early Intervention



Positive Behavior Support



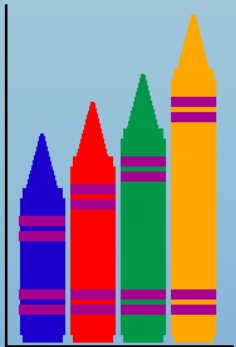
➡ To provide families, caregivers, and others with positive strategies and skills that will result in the child's acquisition of appropriate social and communication skills

➡ To assist young children with challenging behavior and their families with support to achieve quality of life outcomes

Goals of the Program

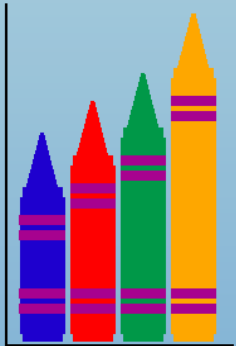


- Provide comprehensive and effective services to young children (birth to three) who have challenging behavior in Hillsborough County, Florida.
- Conduct research that will evaluate the effectiveness of the program and contribute to the evidence-base on effective practices for children with challenging behavior.
- Provide data that facilitate the development of a system of care for young children with challenging behavior.



Program Perspectives

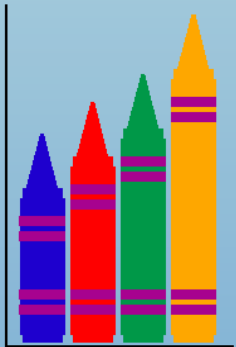
- Individualized
- Natural environments
- Family systems
- Ecological
- Strength-based
- Focused on skills
- Comprehensive



Intervention Components

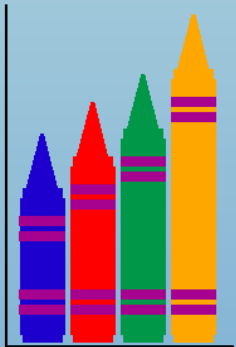


- Screening to determine potential eligibility
- Family/Child Care visit to determine severity of behavior within natural environment and daily routines
- Person-centered planning with family system and circle of support
- Functional assessment within home and child care environments




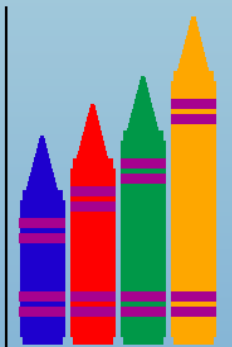
Intervention (continued)

- Family-centered, comprehensive behavior support plan development
- Modeling and coaching in natural environments
- Family support and education
- Ongoing evaluation and monitoring



Process of Positive Behavior Support

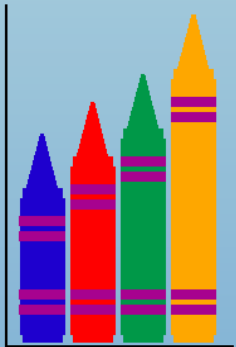
- 
- Step 1:** Convene a team and identify goals of intervention
 - Step 2:** Gathering information (functional assessment)
 - Step 3:** Developing hypotheses
 - Step 4:** Designing behavior support plans
 - Step 5:** Implementing, monitoring, and evaluating outcomes



Functional Assessment

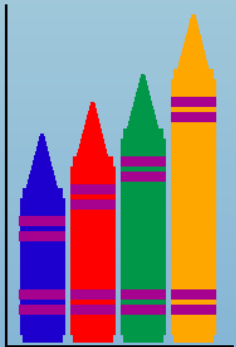


- A process for developing an understanding of a person's challenging behavior and, in particular, how the behavior is governed by environmental events.
 - Observe the child in target routines and settings
 - Collect data on child behavior, looking for situations that predict problem behavior and that are linked with appropriate behavior
 - Interview persons most familiar with the child
 - Review records

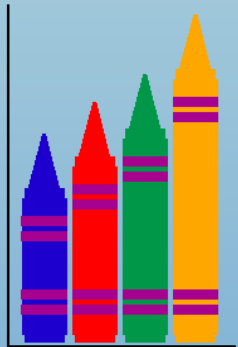


Hypothesis Statement

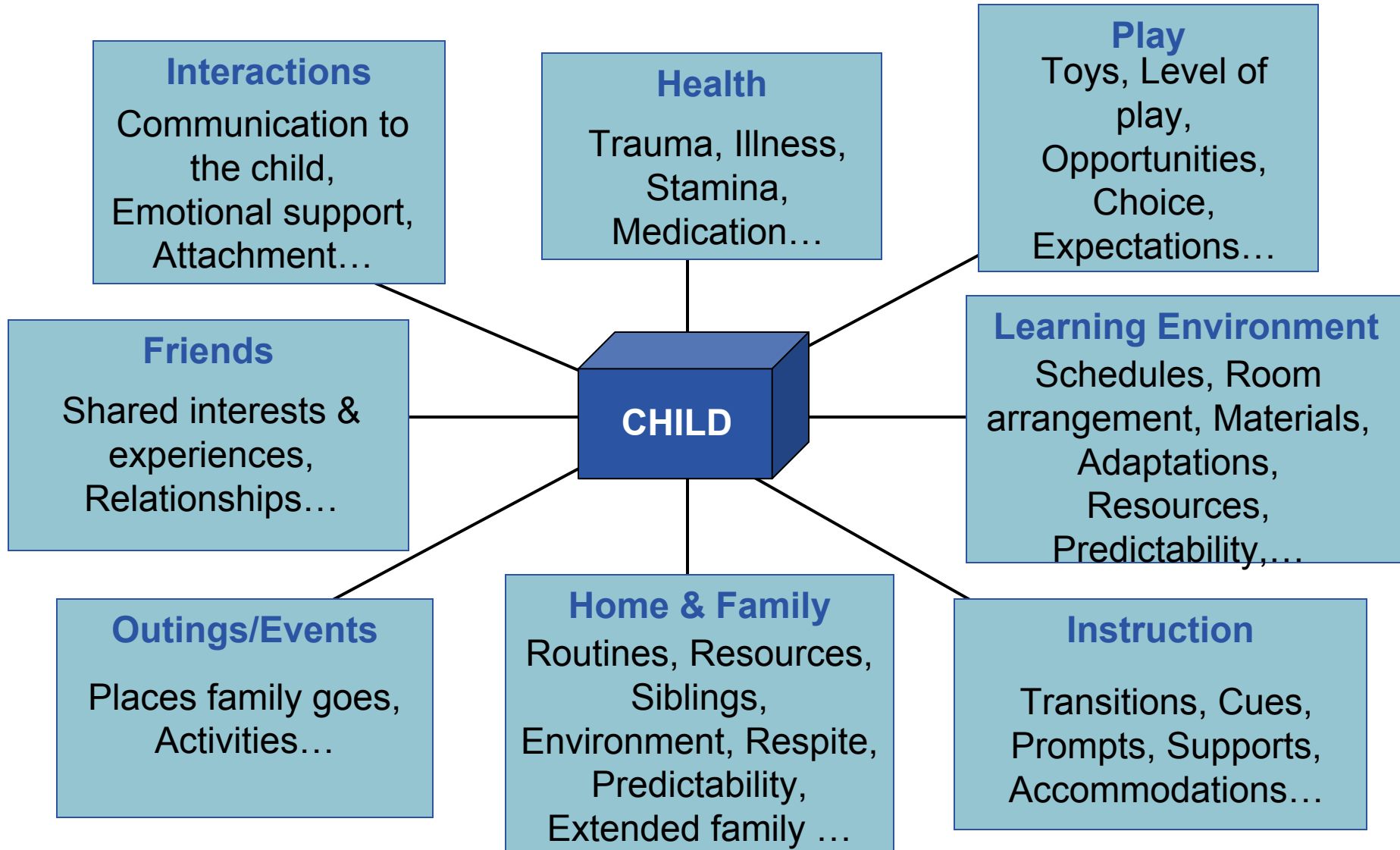
- Description of the problem behavior
- Triggers of the problem behavior
- Purpose of the behavior
- Maintaining consequences



Think Outside the Box:







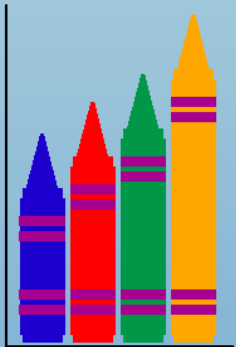
There are Many Variables to Explore



Support Plan

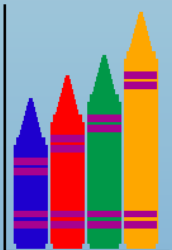


-  **Behavior Hypotheses** - Purpose of the behavior, your best guess about why the behavior occurs
-  **Prevention Strategies** - Ways to make events and interactions that predict problem behavior easier for the child to manage
-  **Replacement Skills** - Skills to teach throughout the day to replace the problem behavior
-  **Responses** - What adults will do when the problem behavior occurs



Max, Zak, & Emmy

PBS Application in a Family Home Environment



Center for Evidence-Based Practice:
Young Children
with Challenging Behavior

Who: Max (30 months)



Strengths:

- Loving & affectionate
- Determined to try new things

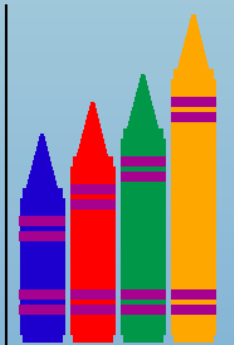
Medical Concerns/Challenges:

- History of failure to thrive & feeding difficulties
- Difficulties with expressive language & articulation



Problem Behaviors:

- Tantrums, hitting, biting, throwing toys, excessive crying, turn taking, off-task, elopement



Step 1: Identify Goals

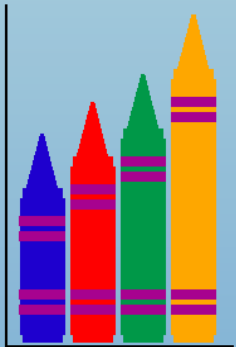


- Family's Initial Concerns
 - Wanted help with Max only

- Team Building/Rapport

- Interventionist's Observations
 - Quickly realized concerns were related to all three children (Max, Zak, & Emmy)

- Identify Parent Responses & Strengths



Who: Zak (30 months)

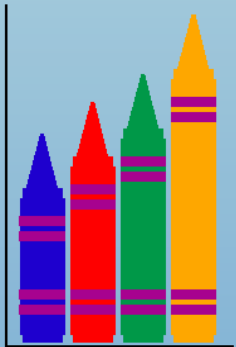


Strengths:

- Very inquisitive
- Loves vehicles (very knowledgeable)

Problem Behaviors:

- Hitting, food dumping, spitting, off-task, biting, throwing toys, excessive crying, turn taking, elopement



Who: Emmy (5 ½ years)

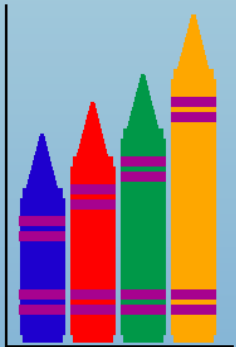


Strengths:

- Artistic
- Demonstrates leadership
- Likes to help mother with household chores

Problem Behaviors:

- Hitting, kicking, taking toys away, throwing objects, negative interactions with mother
- Models & encourages inappropriate language & behavior with younger brothers



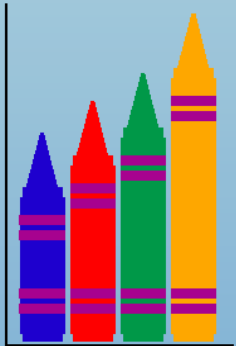
Step 2: Functional Assessment



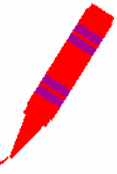
 Identify Target Routines


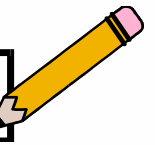
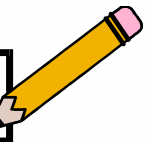
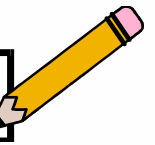
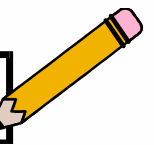

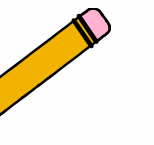
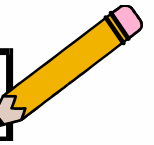
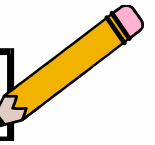
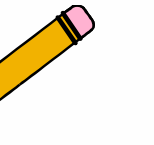
 Functional Assessment:

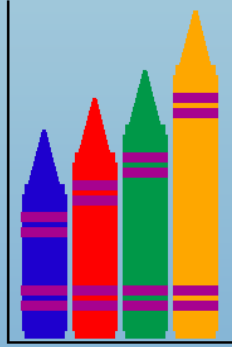
- Functional Assessment Interview-Revised for young children (O'Neill et al., 1997)
- Systematic behavioral observations across times & routines
- Record Review—including CBCL, PSI, MSEL
- Quality of Life Survey with mother
- Sibling interview-Emmy
- Unstructured interview with mother



Target Routines



Routines	Max	Zak	Emmy
Clean Up	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 	
Twin Play	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 	
All Play	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 
Dinner	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 



Methodology



Single Subject Design:

- Multiple baseline across routines (Kazdin, 1982)
- Used to evaluate changes in composite & individual data

Supplemental Data:

- Procedural Fidelity

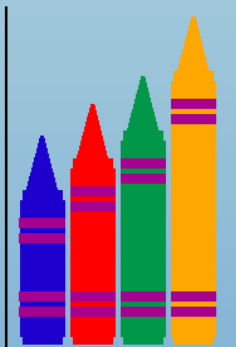
Dependent Variables:

- Percentage of observed intervals with challenging behavior
- Percentage of observed intervals with engagement

Independent Variable:

- Process of PBS (i.e., development & implementation of comprehensive assessment-based intervention)

Interobserver agreement calculated for 30% of sessions at minimum of 96% reliability for all behaviors coded.



Step 3: Hypothesis for Twin Play

Function: The children displayed challenging behavior in order to obtain their mother's attention.

TWIN PLAY

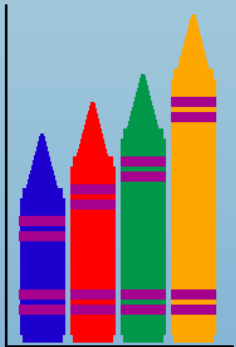
Hypothesis:

- When their mother left the area or stopped playing with them, Max & Zak displayed challenging behavior in order to obtain their mother's attention.



Parent responses:

- Stopped her activity
- Came into room
- Consoled child



Step 3: Hypothesis for Dinner

Function: The children displayed challenging behavior in order to both obtain their mother's attention and escape (nonpreferred food and/or area).

DINNER

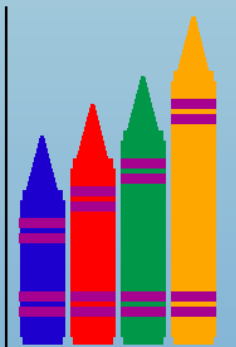
Hypotheses:

- When engaged in the dinnertime routine, the children displayed challenging behavior in order to obtain attention from their mother.
- When engaged in the dinnertime routine, Zak threw or dumped his food and/or beverages in order to escape nonpreferred food and/or to leave area.



Parent responses:

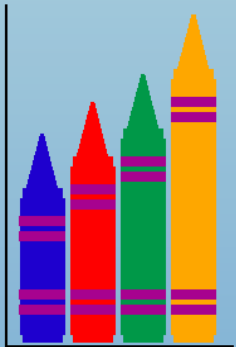
- Gave in to demand
- Excused from dinner
- Verbal reprimand



Step 4: Behavior Support Plans

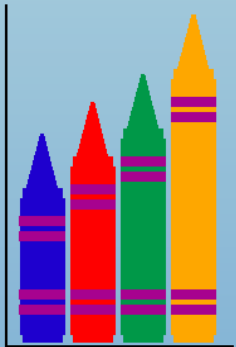


- Developed based upon family's goals & functional assessment data.
- Created in collaboration with the natural intervention agent (i.e., the mother).
- Plans included prevention & teaching components.
- Incorporated preference.
- Customized to fit within the family's natural environment and routines.



Step 5: Implement Intervention

- Implementation was initiated sequentially across routines.
- Coaching was provided during each session to ensure mastery of prevention & intervention components.
- Procedural fidelity data were collected to:
 - Ensure accurate implementation of each support plan
 - Determine which intervention components the mother was most comfortable using independently.



Twin Play: Plan Components



Prevention Strategies

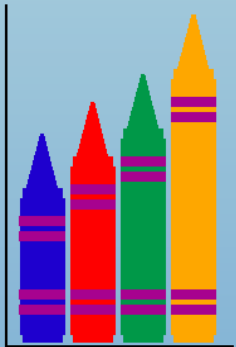
- Choice given (toys)
- Structure activity (clear beginning & end)
- Length of activity shortened to 15 min.
- Toy selection (quantity & ability for independence)
- Clear expectations (visual & verbal)

Parent Responses

- Noncontingent specific praise
- Ignoring
- Redirection (using expectations)

Skill Building

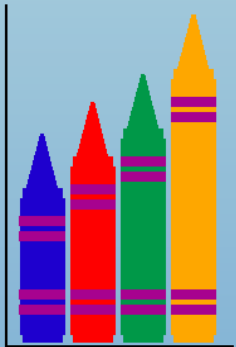
- Teach children how to play independently & follow age-appropriate expectations



Twin Play: Plan Components

Family's Goals:

- Increase rate of engagement.
- Decrease rate of disruption toward mother.
- Decrease rates of challenging behavior.



Dinner: Plan Components



Prevention Strategies

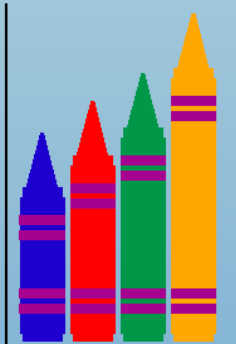
- Structure (Consistently follow same sequence such as prayer)
- Choice for food (back-up)
- Seating arrangement (mother stayed at table, next to Emmy)
- Food on table to prevent need for mother to leave area
 - Emmy's preferences embedded within plan

Parent Responses

- High rates of specific praise
- Ignoring
- Redirection (using expectations)

Skill Building

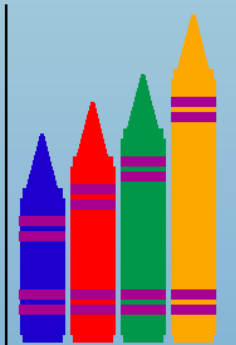
- Emmy takes on role of helping/taking lead
- Emmy's self-management plan:
 - Emmy & mother independently evaluate her performance & compares ratings after dinner (i.e., the steps Emmy reported completing versus the number of steps the mother observed Emmy completing)
 - Menu of reinforcers provided for 80% of steps completed



Dinner: Plan Components

Family's Goals:

- Increase rate of engagement.
- Increase rate of appropriate prosocial skills (e.g., "all done").
- Teach Emmy to monitor her own behavior.





Emmy can be a

SUPERSTAR

at Dinner Time





I can be a **SUPER STAR** at Dinner!



Today is: _____



- I helped set the table..... Yes _____ No _____
- I said a prayer..... Yes _____ No _____
- I talked nicely to Max and Zak Yes _____ No _____
- I talked nicely to Mommy..... Yes _____ No _____
- I used a fork and spoon..... Yes _____ No _____
- I sat in a chair like a big girl..... Yes _____ No _____
- I sat at the table until I was done..... Yes _____ No _____

- I asked to be excused when I was done... Yes _____ No _____

- Was I a **SUPER STAR** at dinner?..... Yes _____ No _____



“YES”-----Hooray! I did it! I get special time with Mommy.

“NO”-----Oops. I will try harder next time to be a good helper for Mommy and show that I CAN be a **SUPER STAR.**

SUPERSTAR MENU



❖ I was a SUPERSTAR at dinner!

❖ I CAN be a big girl and help Mommy with my brothers.



- Tonight, for my special time with mommy, I would like to:

★ Help wash the dishes

★ Help clean the table

★ Help clean in the kitchen

★ Read a story

★ Call daddy to tell him I was a SUPERSTAR

★ Do some arts and crafts

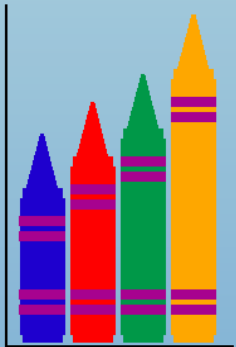
★ Play a game

★ Play on the computer

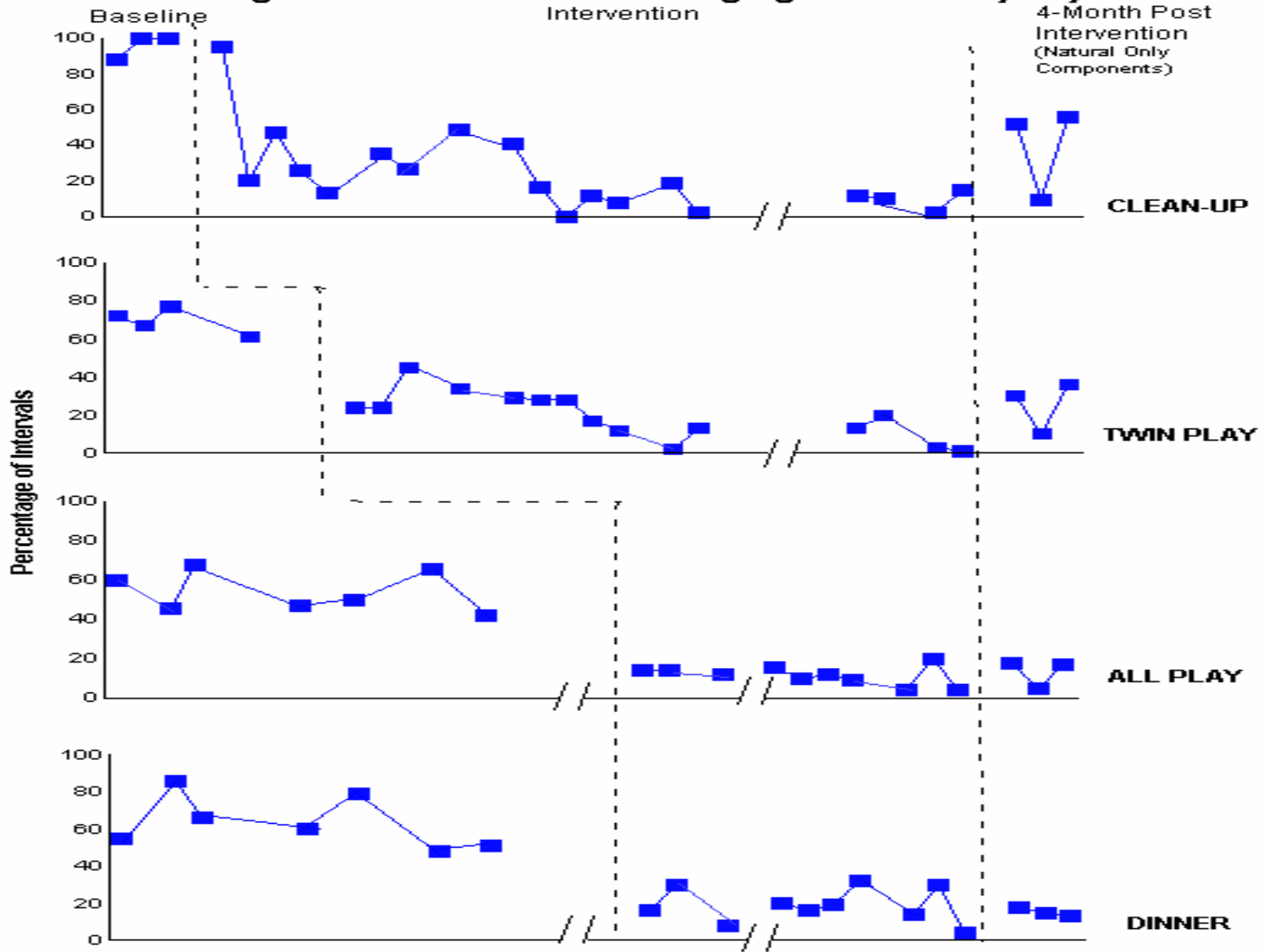


Show me the... Composite Data

- Looks at rate of challenging behavior from the parent's perspective.
- Data scored using a 10-sec continuous interval system.
- Challenging behavior was scored if displayed by ANY child.
- Explores behavior in the context of a family systems approach.

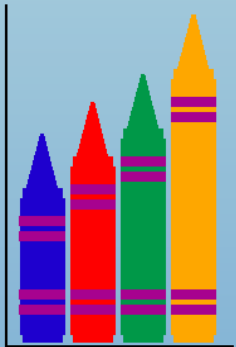


Percentage of Intervals with Challenging Behavior By Any Child

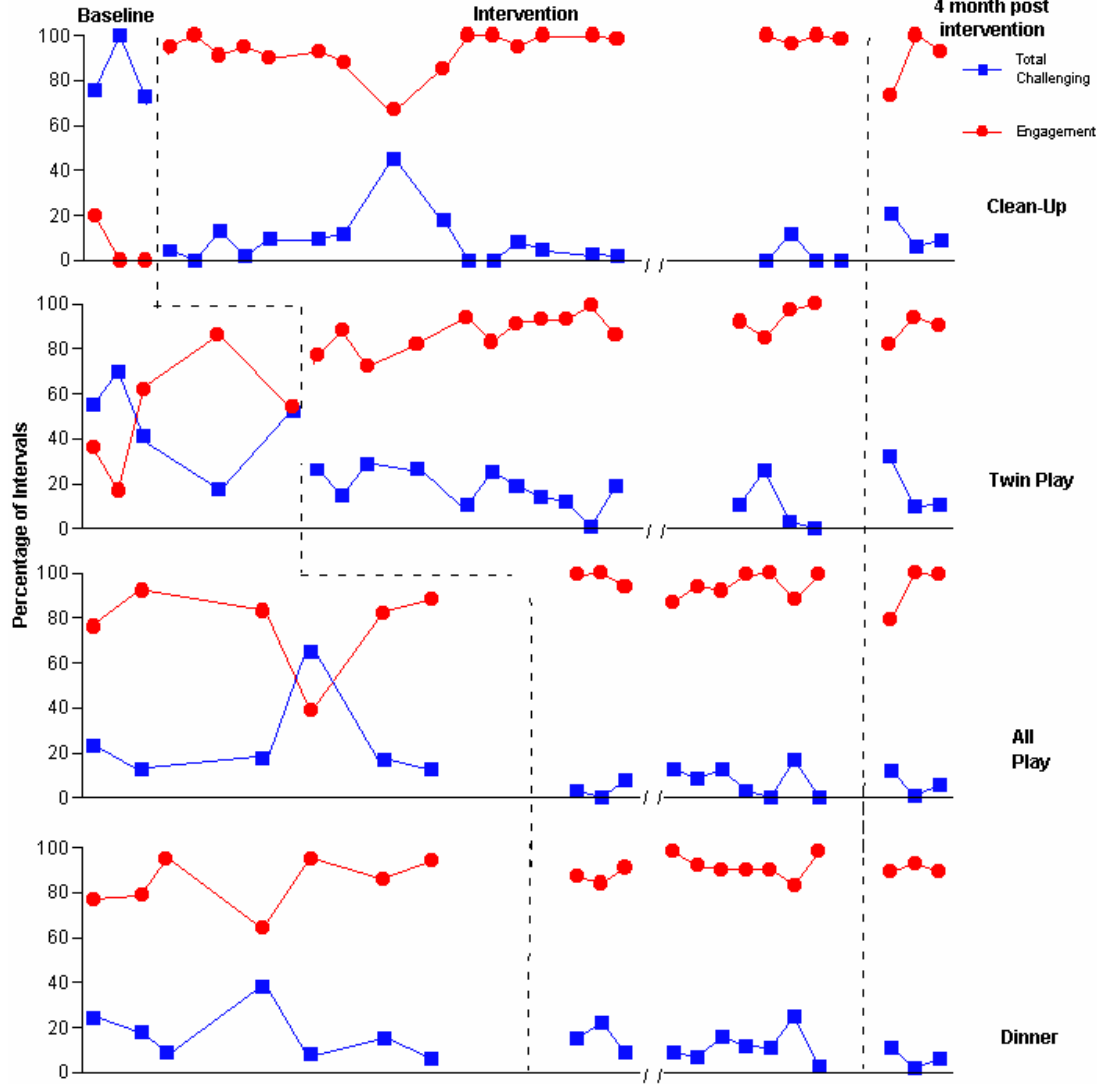


Show me the... Individual Data

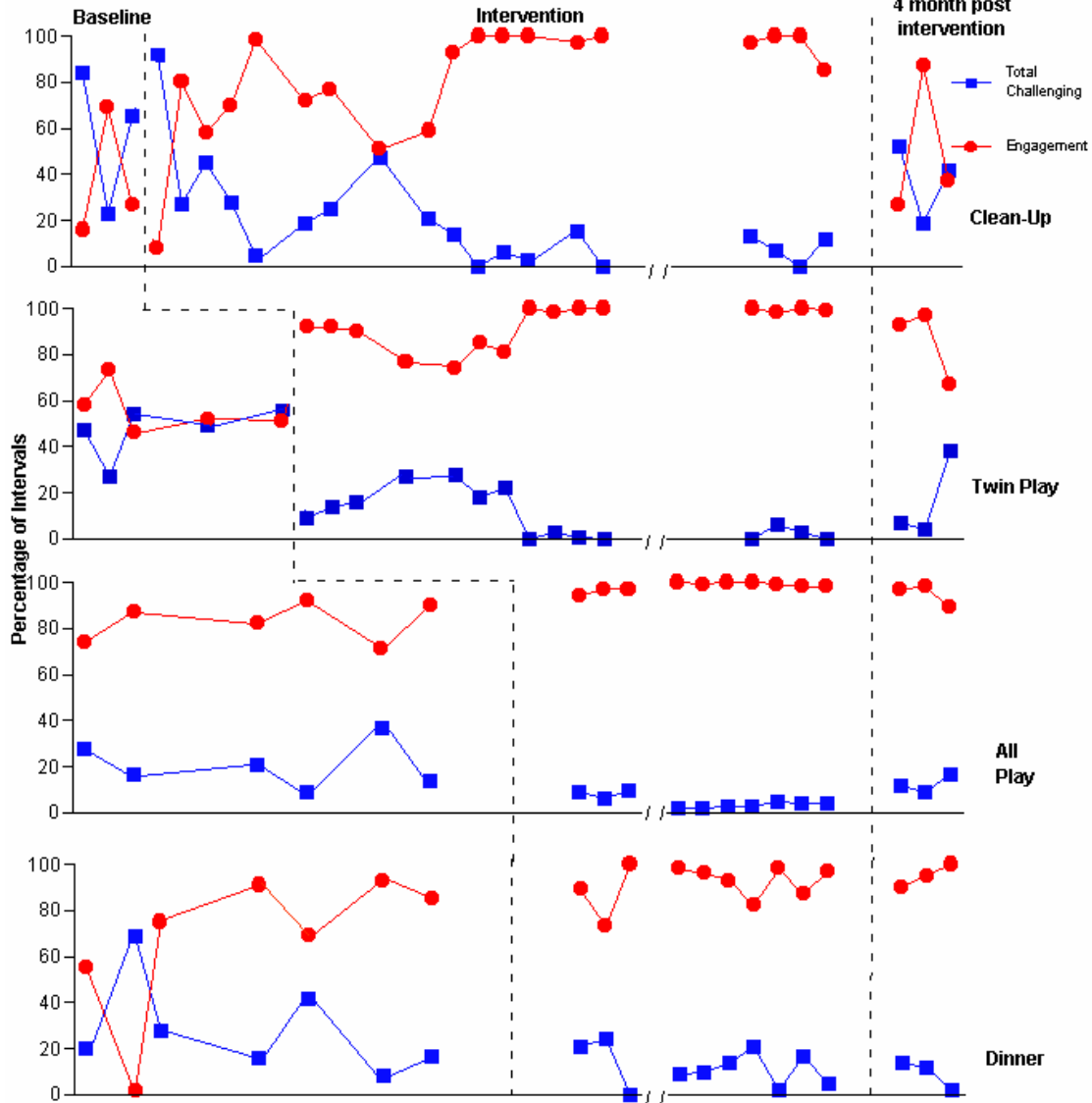
- Both engagement and challenging behavior were scored for each individual child across all four routines.
- Data scored using a 10-sec continuous interval system.
- Helped monitor intervention plan (i.e., comparing rates of engagement and challenging behavior).
- Helped us acknowledge how each child was progressing.



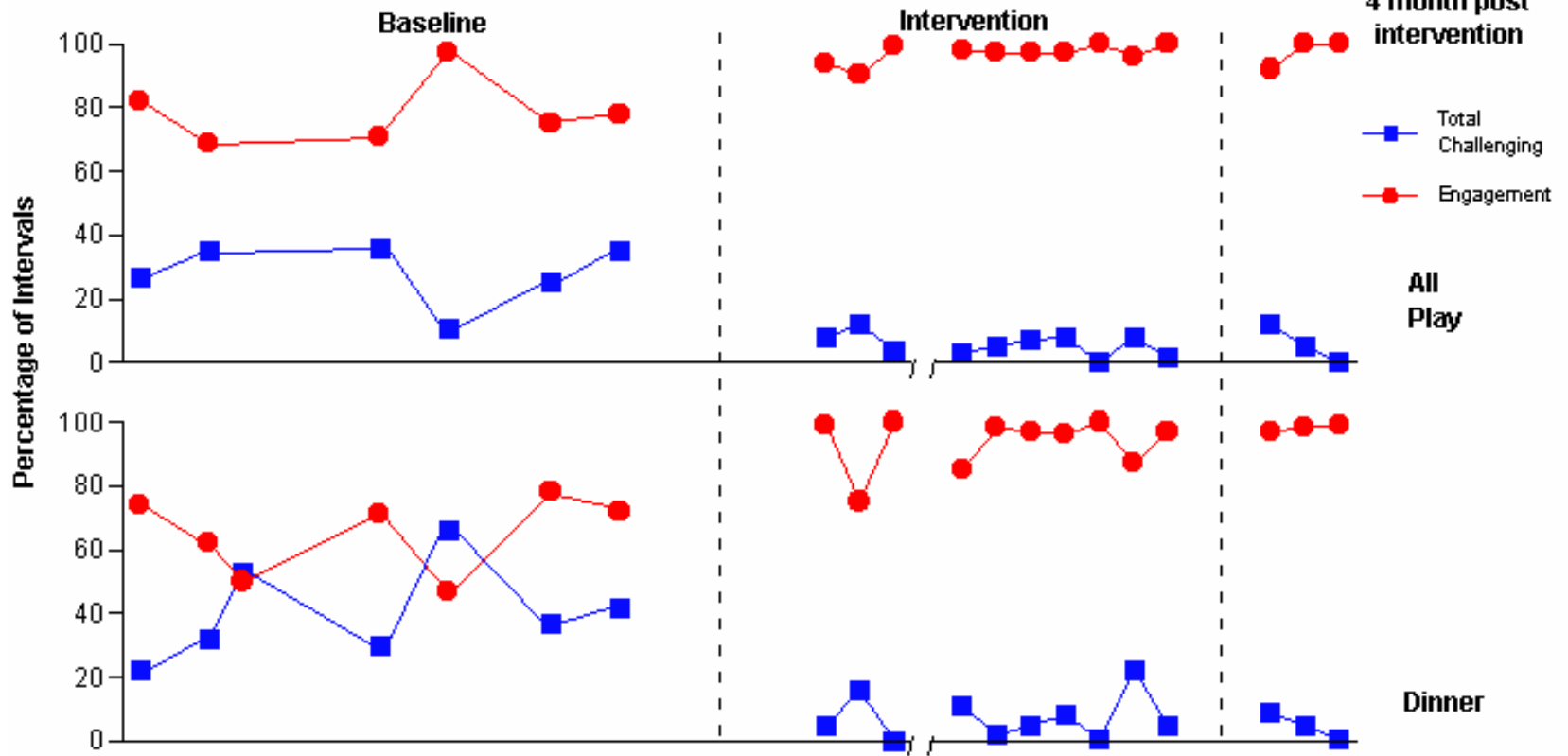
Percentage of Intervals with Engagement and Total Challenging Behavior - MAX



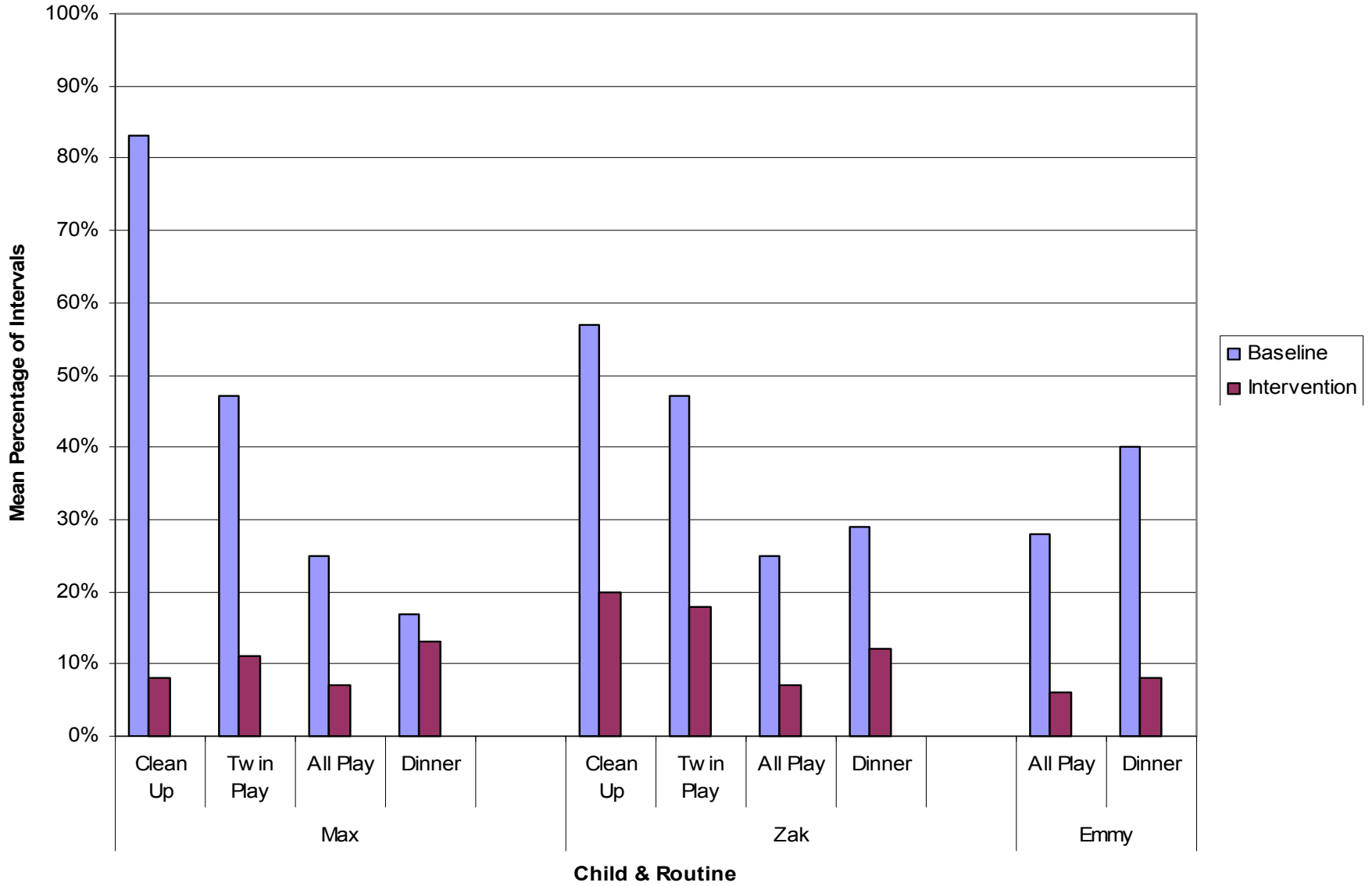
Percentage of Intervals with Engagement and Total Challenging Behavior - ZAK



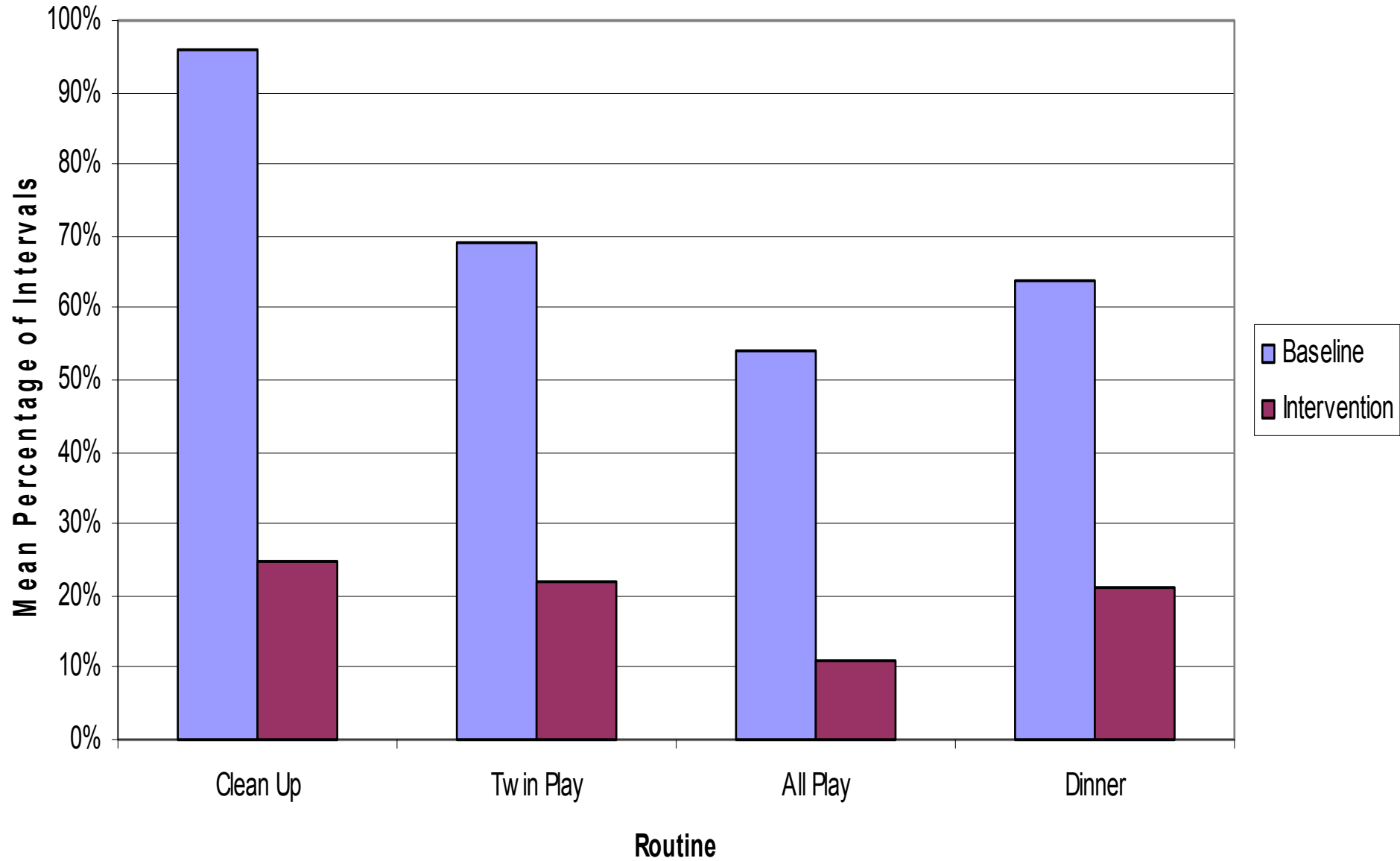
Percentage of Intervals with Engagement and Total Challenging Behavior - EMMY



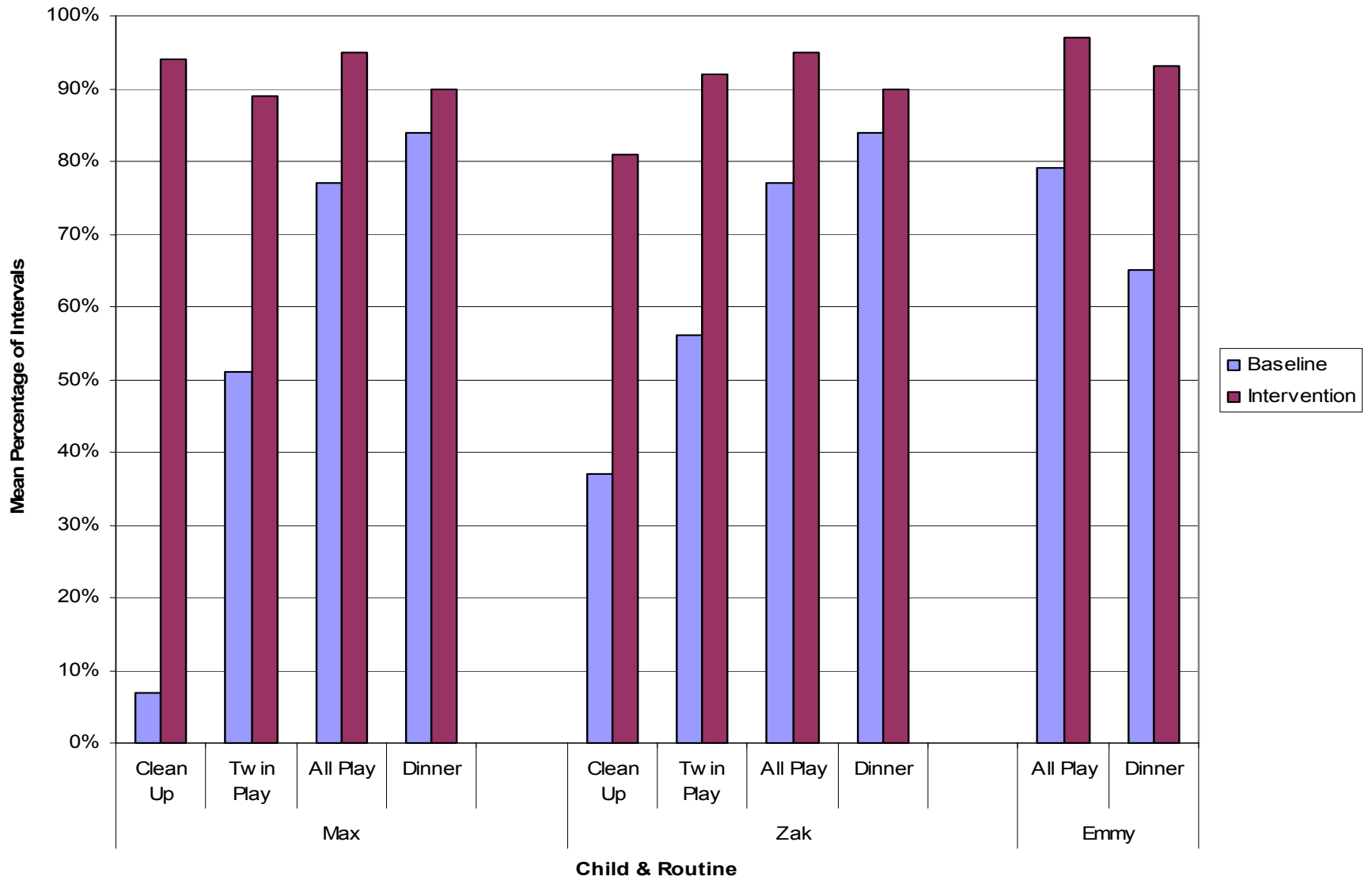
Mean Challenging Behavior Across Child Participants & Routines



Mean Composite Challenging Behavior Across Conditions and Routines



Mean Engagement Across Child Participants & Routines



Contributions of the Study

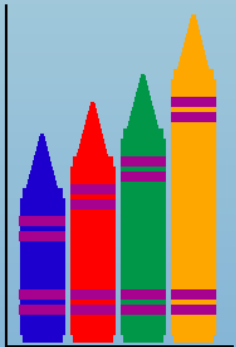


Contributions:

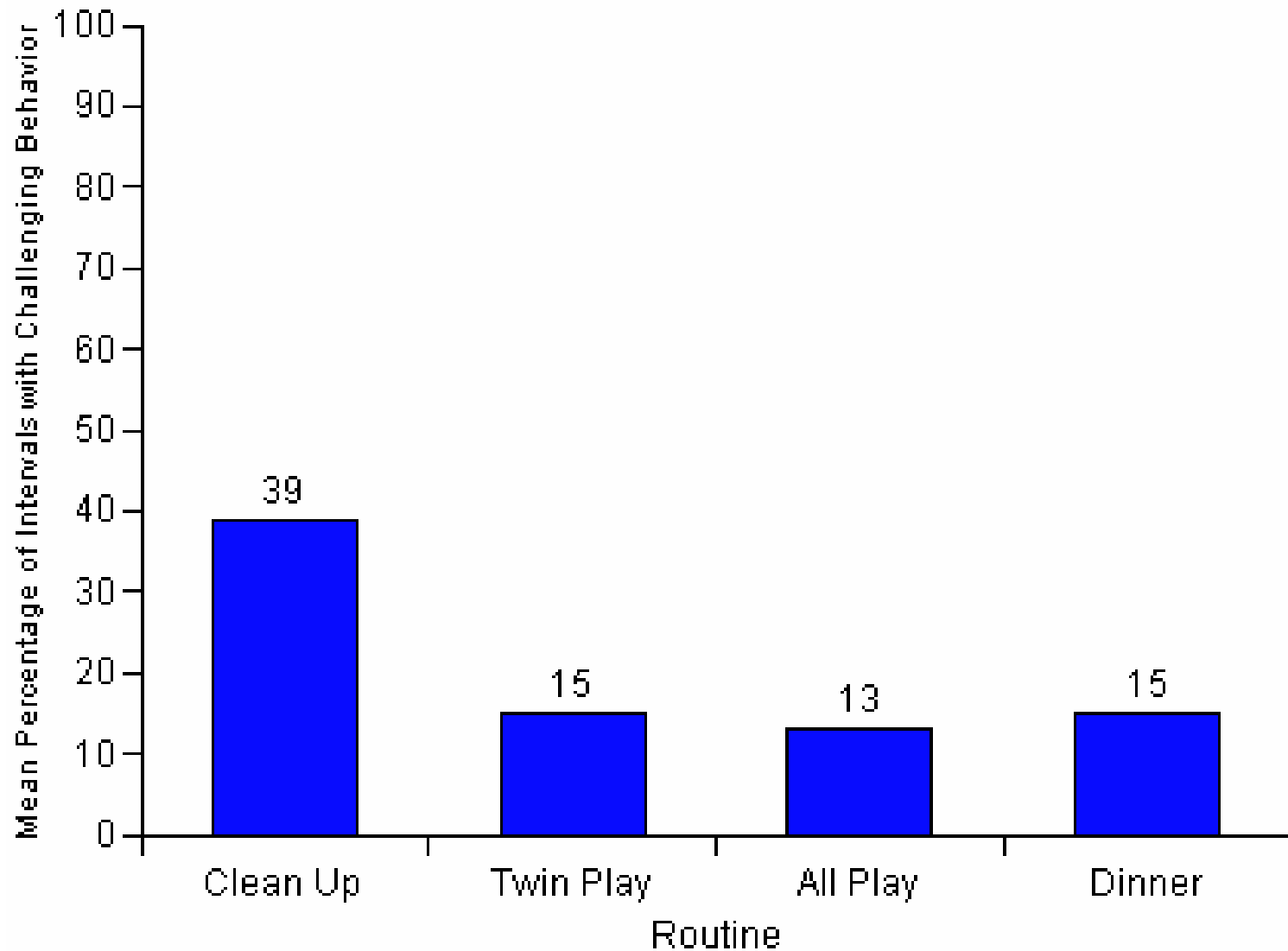
- Illustration of PBS model applied to a sibling set of preschool-aged children with challenging behavior across four routines.
- Natural intervention agents (mother & Emmy) within a natural setting (home).
- Looked at data from the parents perspective with respect to the amount of stress and effort from multiple children.
- Demonstrated maintenance of support plan implementation.

Current Status:

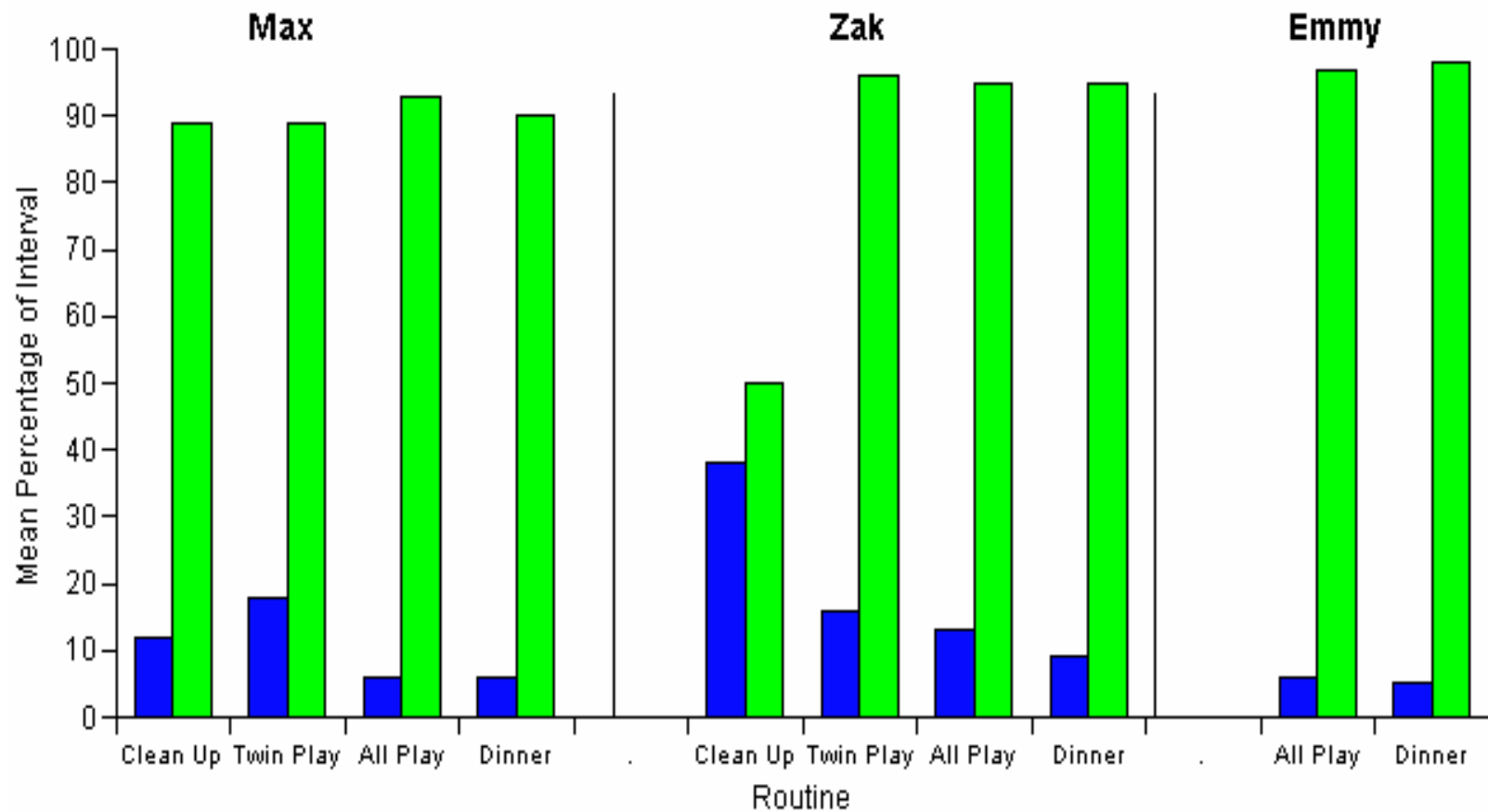
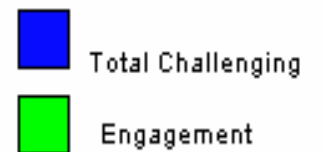
- Family has reported that they engage in more social activities (i.e., going out to eat, church dinners).
- Happier affect, less stress, less community isolation.
- Mother independently implementing routines a year after intervention (as well as independently choosing which specific intervention components to use).
- A year later, the children have maintained high rates of engagement/ prosocial skills and low rates of challenging behavior.



Follow Up - Mean Composite Challenging Behavior across Routines



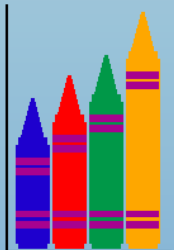
Follow Up - Individual Mean Challenging Behavior and Engagement Across Routines



Bradford



PBS Application in a Pre-K Program



Center for Evidence-Based Practice:
Young Children
with Challenging Behavior

Who: Bradford, 2 years, 7 months

**Lives with parents, one brother (age 3 1/2 years)
Attended private preschool**

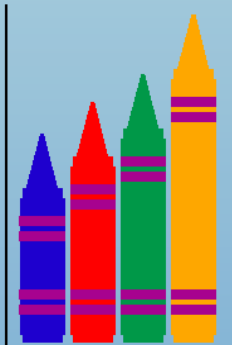


Strengths: Smart, social, likes music, good fine motor skills, strong family support system

**Challenges/Medical Concerns: Expressive
Receptive Language Delay, Speech Delay
Possible Adjustment/Behavioral Disorder**

**PART C Services: Received Speech Therapy.
Early Intervention PBS for Behavior Concerns**

Problem Behaviors: Aggression, Noncompliance, Property Destruction, Self-Injurious Behavior, Elopement



PROCESS: Complete PBS Assessment and Intervention within Preschool Activities



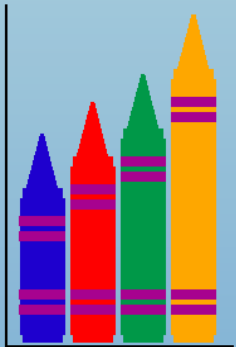
Team: Parents, Preschool Director, 2 Preschool Teachers, Speech Therapist, EIPBS Behavioral Consultant

Selected Routines:

1. Structured Activities: Circle, Art

2. Unstructured Activities: Center, Freeplay

3. Outside Play Activities: Organized Play, Playground



A-B Case Study Design

Outcome data
collected across routines

Dependent Variables:

Challenging Behavior: Frequency of Aggression
(*i.e., hitting, biting, kicking, head butting, pulling hair, spitting*)

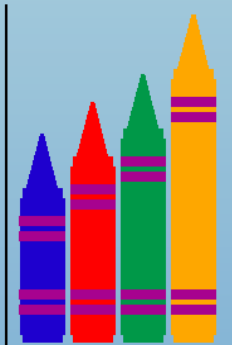
Social Initiations: Frequency of child
appropriate/inappropriate initiations

Happiness: Positive affect, smiling, laughing

Supplemental Data:

Replacement Skills: Frequency of of new skills
demonstrated by Bradford

Social Validation: School staff ratings of goals,
procedures and outcomes



Independent Variable:

PBS Process development and implementation of comprehensive assessment-based intervention



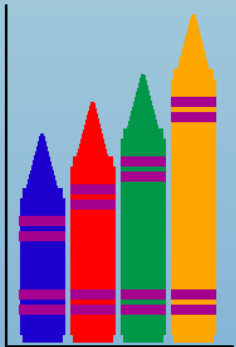
Step 1: Identify Goals

Step 2: Gather Information/ Functional Assessment

Step 3: Develop Hypotheses

Step 4: Design Behavior Support Plan

Step 5: Implement intervention



Information Gathered from Functional Assessment

Strengths:

- Wants to interact with others
- Fine motor skills
- Curious and interested in how things work
- Good memory
- Smart

Medical:

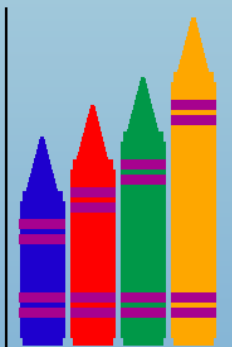
- Verbal/receptive deficits,
- severe language delay
- Sensitivity to noise, easily overstimulated

Teacher Responses:

- Removal of demands
- Removed from activity
- One to one
- Reprimands
- Threats
- Coax
- Lecture
- Time out

Difficulties:

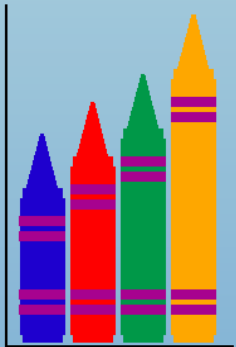
- Transitions
- Unstructured activities
- Changes in routine
- Nonpreferred activities
- Social interactions
- Demands
- Large groups of people
- Loud noise
- Peers close proximity



Hypothesis Statements:

Bradford engaged in challenging behavior:

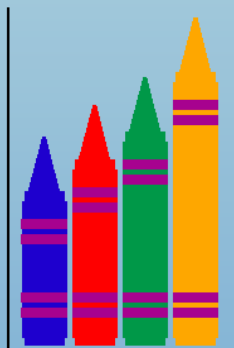
- 1. in an attempt to escape from school activities that were unpredictable or had unclear expectations*
- 2. In an attempt to escape from activities that were nonpreferred (difficult, boring)*
- 3. In an attempt to escape from activities associated with high levels of noise or people*
- 4. In an attempt to gain peer or teacher attention*



Specific Intervention Strategies


Prevention Strategies

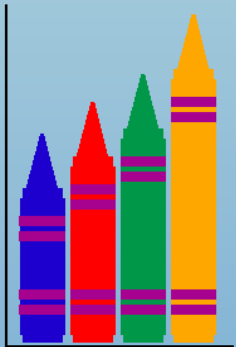
- Visual cues/photo schedule/Stop signs
- Social stories for routines
- First/Then boards
- Choice chart
- Preferred items
- Manipulatives
- Modified materials
- Remove distractions
- Add quiet area in room
- Add breaks
- Peer buddy



Specific Intervention Strategies

Teacher Responses

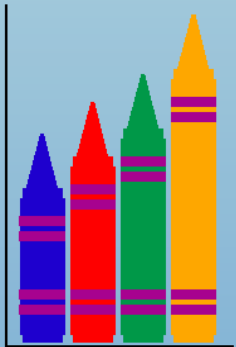
- 
- Clear instructions
 - Redirect and ignore
 - Specific praise
 - Provide choice
 - Materials ready
 - Provide consistent verbal “All done”, countdowns
 - Promote active participation with modeling
 - Encourage verbal communication
 - Monitor and anticipate difficult play activities provide option to leave area



Specific Intervention Strategies

Skill Building

- Teach how to verbally initiate/terminate interactions
- Teach how to initiate appropriate physical affection
- Teach how to appropriately ask for "break" or "help"
- Teach how to respond to loud or overstimulating situations
- Teach how to make and express choice



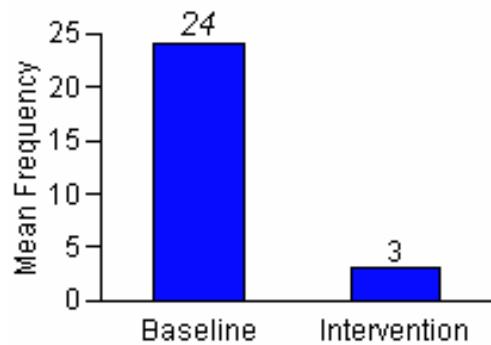
Challenging Behavior Data

Mean Frequency of Aggression During *Unstructured* Activities

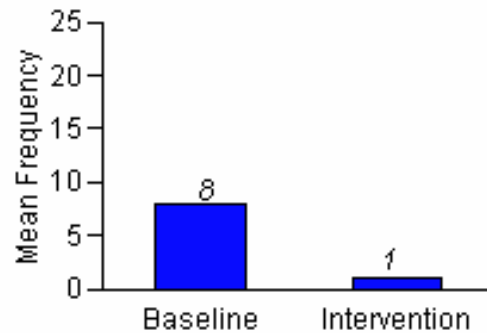
Mean Frequency of Aggression During *Structured* Activities

Mean Frequency of Aggression During *Outside* Activities

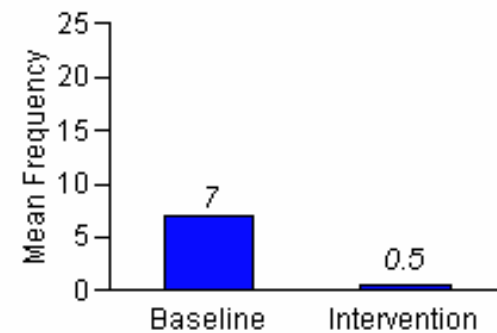
Freeplay



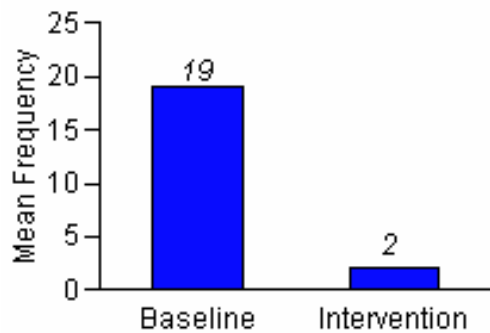
Circle



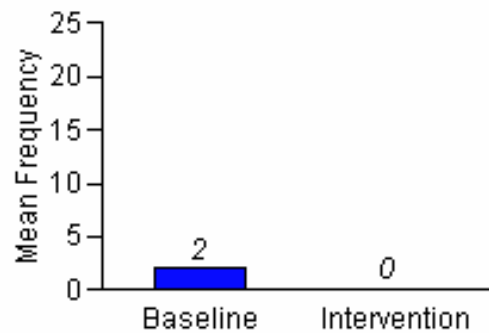
Organized Play



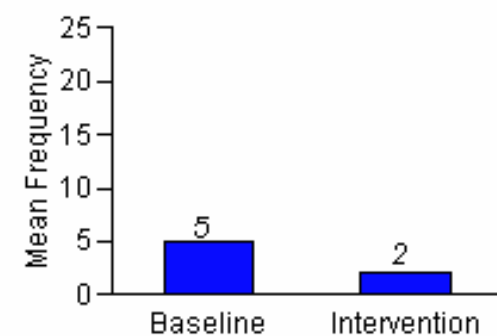
Centers



Art

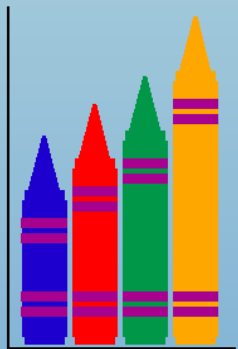
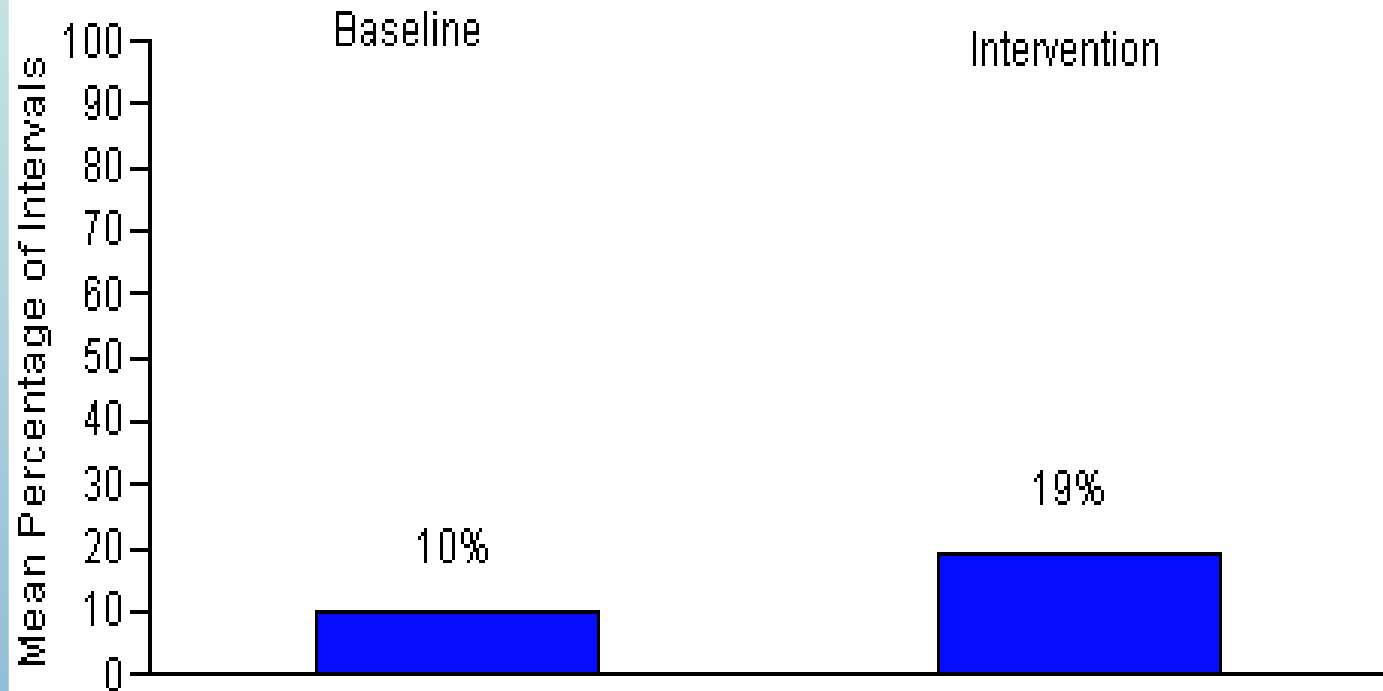


Playground



Happiness Behavior Data

Mean Percentage of Intervals with Positive Affect Across All Routines



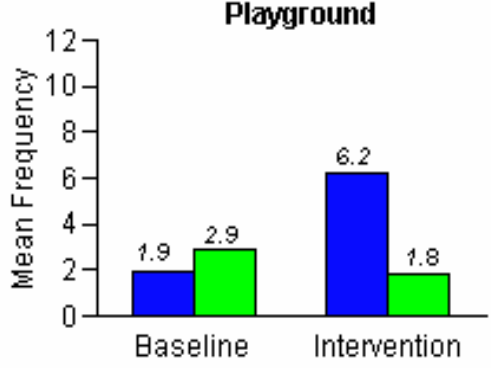
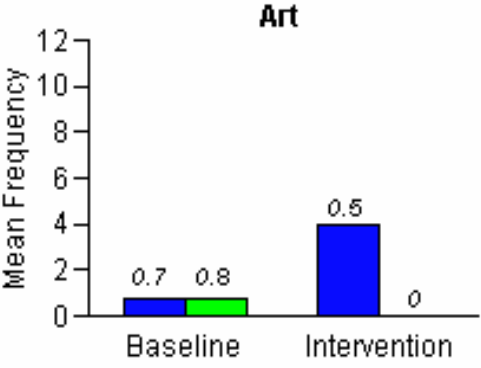
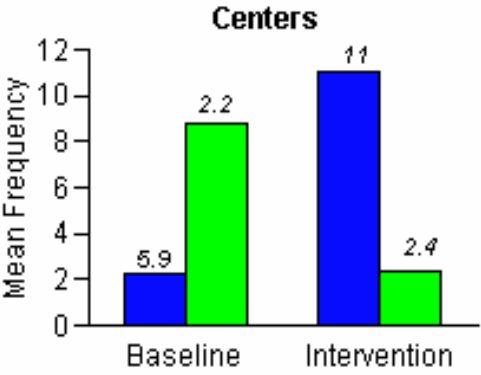
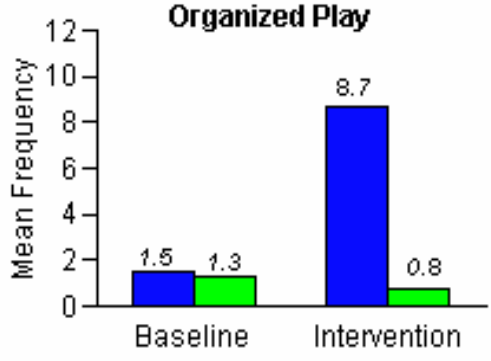
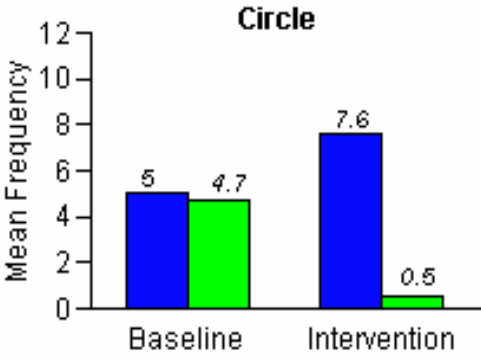
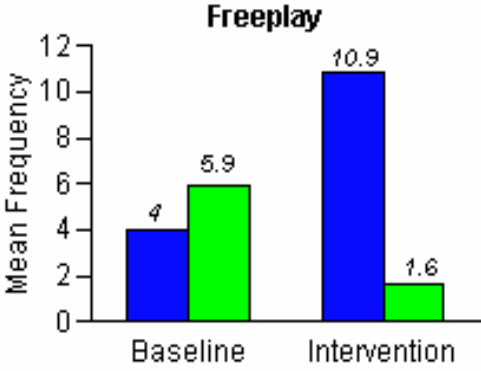
Appropriate and Inappropriate Social Initiations

- Appropriate Social
- Inappropriate Social

Mean Frequency of Social Initiations During *Unstructured* Activities

Mean Frequency of Social Initiations During *Structured* Activities

Mean Frequency of Social Initiations During *Outdoor* Activities



Replacement Skill vignettes

New skills taught

Verbal Examples:

"I want to share"

"Go away"

"I need help"

" I want a break"

"All done"

"I want a hug/kiss"



Nonverbal Examples:

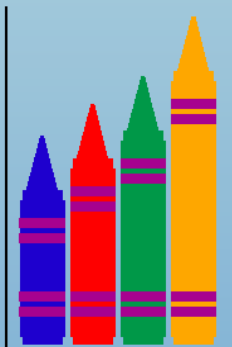
Gesture with toy to share

Gesture for hug/kiss

Gesture with STOP sign

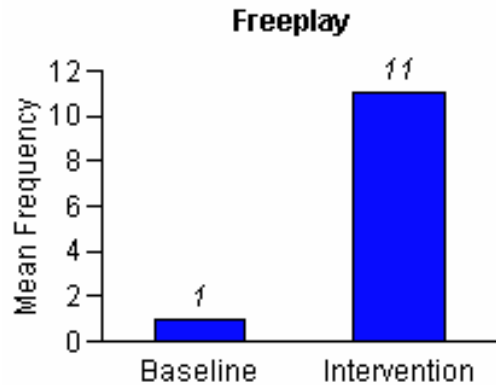
to end or break

**Point to picture to leave
area**

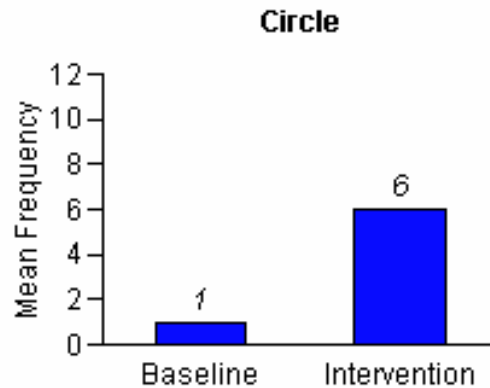


Replacement Skills Data

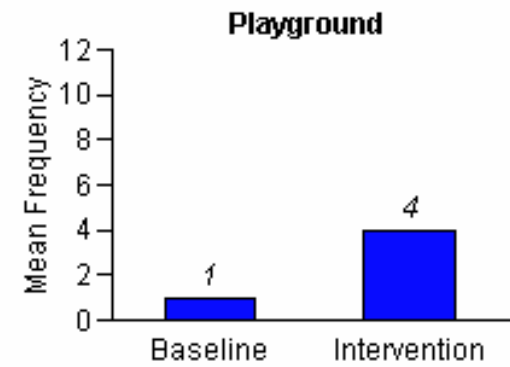
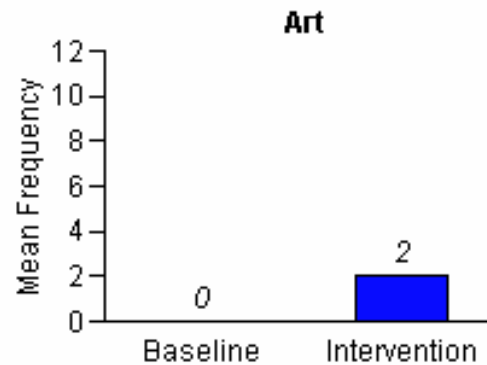
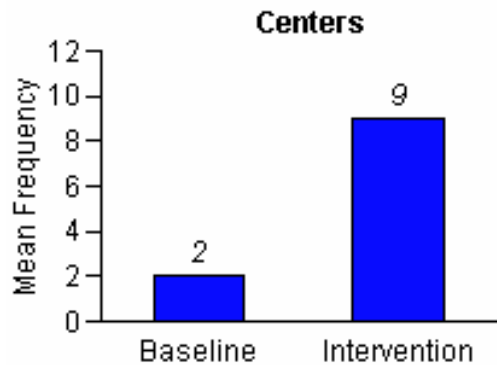
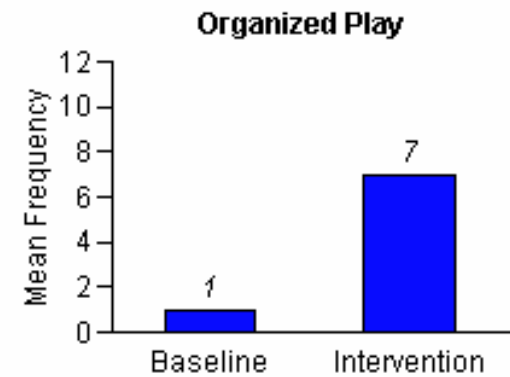
Mean Frequency of Replacement Skills During *Unstructured* Activities



Mean Frequency of Replacement Skills During *Structured* Activities



Mean Frequency of Replacement Skills During *Outside* Activities



Current Status:

Turned three in September, 2005

Successfully transitioned to Early Childhood Special Education Classroom

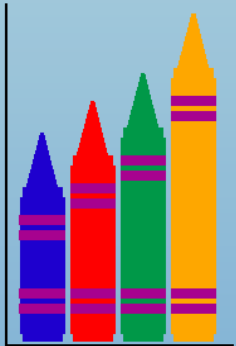
Contributions of Case study:

PBS study with a toddler in preschool setting

Preschool teachers intervention agents

Supplemental data

Strategies generalized to new classroom



Thanks...

Questions or Comments?

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Clarke@fmhi.usf.edu

