



**The PiCS Project: Training and Coaching  
Parents of  
Young Children with Developmental  
Disabilities  
to Increase Their Children's Social  
Pragmatic  
Communication Skills**

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# Disclosure Statement

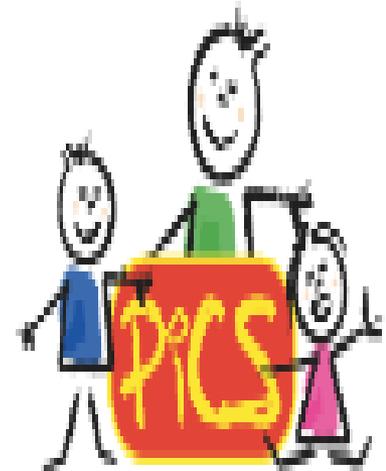
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# Goals for today

- \* **Understand** the evidence-based practices that are the framework of PiCS
- \* **Explain** the evidence-based instructional strategies that we taught parents to implement
- \* **Discuss** the results
- \* **Practice** developing the action plan

# Conceptual Framework of PiCS

- \* Best practices for early intervention
- \* Collaboration with parents
- \* Social-pragmatic communication skills can be increased using naturalistic and visual strategies



Best Practice for Early Intervention	PiCS Intervention	Is the PiCS program meeting this best practice for early intervention?
<b>Developmentally age-appropriate practices</b>	One of the foundations of the PiCS project is milieu teaching and joint attention. Coaching sessions are focused on what the child is interested in and joint attention is established before any naturalistic or visual strategies occur.	Yes
<b>Family-centered intervention</b>	Parents are: <ul style="list-style-type: none"> <li>• involved in the establishment of individual objectives for their children for each coaching session</li> <li>• coached individually</li> <li>• provided feedback based on their performance</li> </ul>	Yes
<b>Natural, Authentic, and Inclusive Learning Environments</b>	Parents are trained and coached in the interventions in their homes with their children	Yes

Best Practice for Early Intervention	PiCS Intervention	Is the PiCS program meeting this best practice for early intervention?
<p>Collaborative Team Process</p>	<p>Parents and coaches jointly:</p> <ul style="list-style-type: none"> <li>• establish objectives for the PiCS coaching sessions</li> <li>• establish objectives for their children</li> </ul> <p>Parents are asked to give feedback on the PiCS process numerous times throughout the program.</p>	<p>Yes</p>
<p>Active Child Learning</p>	<p>The PiCS project involves the parent and child interacting during the coaching sessions, and this is usually during play or an age-appropriate</p>	<p>Yes</p>

# Collaboration with Families

- During the first 1:1 coaching session with the parents, the coaches asked the parents to share their dreams, hopes, and concerns for their children for the next 2-3 years
- Parents collaborated with the coaches in developing long-term visions for their children.
- In addition, short-term goals specifically related to the children's communication behavior were developed.

# Evidence-based Naturalistic and Visual Strategies

- \* Importance of using evidence-based strategies
- \* Training video (conceptual framework)

# What is PiCS?

- \* Data-based development project
- \* Focused on the development of family-specific, parent-implemented **naturalistic** and **visual** teaching strategies designed to improve the **social-pragmatic communication skills** of young children with developmental disabilities (DD).
- \* PiCS team members **trained** and **coached** parents in the teaching strategies, provided feedback, and worked with parents to develop communication goals for their children.

# Naturalistic Strategies

- Environmental Arrangement
- Modeling
- Mand-Model
- Time Delay



# Environmental Arrangement

- \* Parents were taught to arrange the environment prior to each intervention session to facilitate and promote communication.
- \* The establishment of **joint attention** was critical to the implementation of all strategies and parents were taught to establish joint attention with their children before strategies were initiated.

# Environmental Arrangement video

\* [Video](#)

# Naturalistic Strategies

- \* Modeling
- \* Mand Model
- \* Time Delay

# Modeling

- \* **Modeling** is the most fundamental naturalistic strategy whereby parents establish joint attention with their children, then present a model to the child.
- \* [Video of Modeling](#)

# Mand-Model

The ***mand-model*** strategy is similar to the modeling procedure (and follows the same sequence of steps), but includes parents' presentation of verbal prompts in the form of a question: (e.g., "What do you want?") or choice (e.g., "...this or that?"), or mand: (e.g., "Tell me what you want").

[Video](#)

# Time Delay

- ***Time delay*** requires joint attention with the child. It is effective if it occurs within a familiar routine. The communication partner looks expectantly and waits for the child to initiate requests, responses, or comments.

[Video of Time Delay](#)

# Visual Strategies

- \* The primary goals of visual strategies are to enhance comprehension of language, prepare for environmental changes, or assist with the completion of a specific task.
- \* Many children with DD and ASD have significant difficulty with comprehension and retention of auditory information.
- \* Visual strategies used in the PiCS Project included visual schedules, task analysis, and rule reminder cards.

# Visual Schedules

## Bedtime Schedule

**Brush your teeth.**



**Rock-a-bye.**



**Get in bed.**



**Lay down.**



**Go to sleep.**



[Video](#)

# Visual Task Analysis

[Video](#)

## Washing Hands

Get up.



Turn water on.



Put hands in.



Get soap.



Rub your hands.



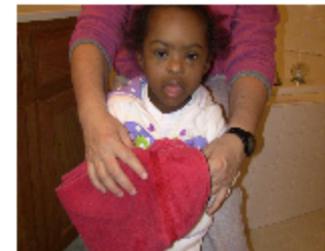
Rinse your hands.



Turn water off.



Dry your hands.



# Visual Rule Reminder Cards

Keep glasses  
on.



Clean up.



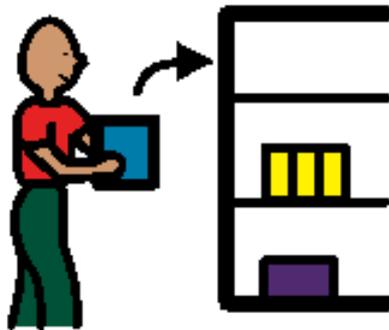
Keep hands to  
yourself.



Do not hit.



Clean up.



Hold hands.



# Action Plan

- \* Let's develop an action plan

# Discussion

- Individualized training and coaching for parents was effective.
  - ❖ Interventionist parents learned the targeted strategies.
  - ❖ PiCS coaches used parents' criterion-level performance (demonstrating Quality 3 use of the target strategies on a Quality 1-2-3 scale) to move to the next teaching strategy.
- Although interventionist parents learned the targeted strategies, they did not use all strategies with the same frequencies, indicating individual preferences.
- Child-directed activities and routines determined parents' demonstration of correct strategies use.
  - ❖ Sometimes parents selected visual teaching strategies or planned strategy implementation for activities or routines that occurred when PiCS observers were not present.

# Discussion

- Results show great promise for empowering parents to use naturalistic and visual strategies to improve their children's communication skills.
  - ❖ Parent interventionists' use of the target strategies positively influenced their children's increase in effective communication behaviors.
- Regarding our study within a study:
  - ❖ A functional relationship was demonstrated between the PiCS Parent Training and Coaching Program and the interventionist parents' correct strategies use.
  - ❖ A strong functional relationship was demonstrated between the interventionist parents' correct use of naturalistic and visual teaching strategies and their children's improved communication behaviors.

# What is Social Validity?

- \* Wolf (1978) referred to the validation of practices as “judgments of social validity” (p. 207).
- \* Wolf suggested three levels of *social validity*:
  - \* (a) the social significance and importance of the **goals**
  - \* (b) the acceptability of the intervention: **procedures**
  - \* (c) the satisfaction with the results of the intervention: **outcomes**

# PiCS Project

- Family members learned new strategies from parent interventionist

- Parent interventionist reinforced by family members use of strategies

- Parent interventionist used new strategies with target child

- Parent interventionist reinforced by target child's communicative behavior

**Parent Interventionist**

- Learned new skills/strategies
- Changed own behavior
- Changed interactions with target child

## Family Members

- Learned new skills/strategies
- Increased interaction among family members
- Decreased frustration during interaction
- Increased whole family activities

- Family members used new strategies with target child

- Family members reinforced by target child's communicative behavior

## Target Child

- Improved comprehension
- Decreased frustration
- Increased communication
- Increased involvement in family activities

# Family Perspectives of PiCS

- \* [Video of Interventionist Parents](#)
- \* [Video of Non-interventionist Parents and Siblings](#)

# Q & A

- \* Questions?
- \* Comments?