What is PICCOLO?
An Overview of an Observational Measure of Developmental Parenting

Lori A. Roggman

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What is PICCOLO?
Parenting **I**nteractions with **C**hildren:
Checklist of **O**bservations **L**inked to **O**utcomes

PICCOLO is observational measure of positive parenting interactions with very young children that is:

- *Easy to use*
- *Practical*
- *Reliable*
- *Valid*

What does **PICCOLO** measure?

We identified 4 important kinds of "*developmental parenting*" behaviors from the research literature:

- **Affection**
- **Responsiveness**
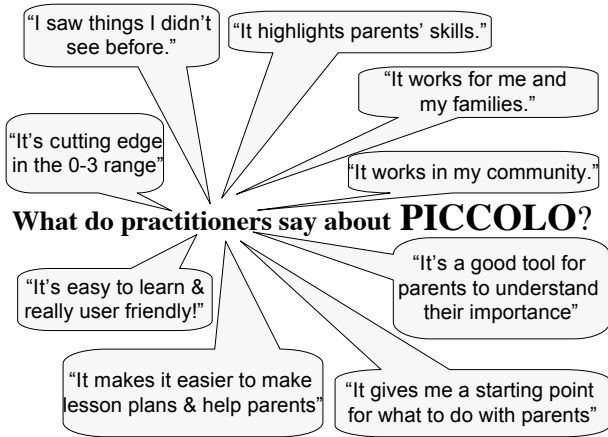- **Encouragement**
- **Teaching**

These kinds of parenting behaviors predict better child development outcomes.

What does PICCOLO look like?

A list of observable parenting behaviors, with a rating scale from 1 to 3 for each behavior.

The behaviors predict positive child outcomes:

- *Cognitive development*
- *Vocabulary*
- *Behavior*

What do practitioners say about **PICCOLO**?

"I saw things I didn't see before."

"It highlights parents' skills."

"It works for me and my families."

"It's cutting edge in the 0-3 range"

"It works in my community."

"It's a good tool for parents to understand their importance"

"It's easy to learn & really user friendly!"

"It makes it easier to make lesson plans & help parents"

"It gives me a starting point for what to do with parents"

Why use PICCOLO**?**

- to assess parenting skills

- to guide parenting interventions

- to track program outcomes

How was **PICCOLO** developed?

- Used data & video archive mostly from national Early Head Start Research & Evaluation Project

- Collected new data from 4,500+ clips of 2,000+ families

- Selected best 29 items from 100+ items

Each domain has a list of 7-8 behaviors.

For example:

Domain 1: Affection
Parent. . .
1. speaks in a warm tone of voice
2. smiles at child
. . . .

Each item has coding guidelines

Parent...	Observation Guidelines
1. speaks in a warm tone of voice	Parent's voice is positive in tone and may show enthusiasm or tenderness. A parent who talks little but speaks warmly should be coded highly.
2. smiles at child	Parent directs smiles toward child, although parent and child do not necessarily need to be looking at each other when smile occurs. Includes small smiles.
....	....

Each item is scored as 0, 1, or 2

None	Some	Lots
0	1	2

Scoring

0 – "None" - Absent; didn't see, not observed.
1 – "Some" - Barely there; seen sometimes.
2 – "Lots" - Consistently there; seen often.

PICCOLO **is . . .**

• *Positive*: **PICCOLO** *items describe* **positive parenting.**

• *Practical*: **PICCOLO** *helps practitioners identify parenting* **strengths** *to encourage parents to do more.*

• *Culturally Relevant*: **PICCOLO** *was developed from videotaped parenting interactions of*
    • *European-Americans*
    • *Latino-Americans*
    • *African-Americans*

PICCOLO **is . . .**

• *Reliable*: *Independent observers rate* **PICCOLO** *items similarly,*
    • over 70% agreement across all ethnic groups
    • 2 of 3 observers agree over 90% of the time
    • inter-rater reliability, $r = .85$

and **PICCOLO** *domain items "hang together"*
    • alpha > .70 across domains & ethnic groups
    • single factor structure within each domain

PICCOLO is . . .

• *Valid*: **PICCOLO** *has good content, construct, and predictive validity*.

• *content validity*: practitioners' importance ratings

• *construct validity*: correlations with similar measures

• *predictive validity*: correlations with child outcomes

Content Validity

Practitioners rated each **PICCOLO** item on 0-3 scale
- 0 = not at all important
- 1 = somewhat important
- 2 = fairly important
- 3 = very important

Selected items averaged 2.6, eliminated items 2.3.

	Average importance
• **Affection**	**2.7**
• **Responsiveness**	**2.6**
• **Encouragement**	**2.6**
• **Teaching**	**2.4**

Construct Validity

In all age (14m, 24m, 36m) & ethnic groups, similar measures are correlated with **PICCOLO** domains:

• *Affection* with *positive regard*, $r > .50$

• *Responsiveness* with *sensitivity*, $r > .39$

• *Teaching/Talking* with *cognitive stimulation*, $r > .50$

• *Encouragement* with *supportiveness*, $r > .50$

Predictive Validity

PICCOLO correlates with the following outcomes, at various times, for all ethnic groups:

• *Cognitive development*
• *Vocabulary*
• *Behavior*

Domain 1: Affection

Definition: Warmth, physical closeness, and positive expressions toward child.

Affection is related to
- less antisocial behavior
- better adjustment
- more compliance
- greater cognitive ability
- more school readiness

Research by Caspi, et al. (2004),Dodici et al. (2003), Estrada et al. (1987), MacDonald (1992), Petrill et al., (2004), and Sroufe et al. (1990).

Affection items

Parent . . .
1. speaks in a warm tone of voice
2. smiles at child
3. praises child
4. is physically close to child
5. uses positive expressions with child
6. is engaged in interacting with child
7. shows emotional support toward child

Domain 2: Responsiveness

Definition: Responding to child's cues, emotions, words, interests, and behaviors.

Responsiveness is related to
- **more secure attachment**
- **better cognitive & social development**
- **better language development**
- **fewer behavior problems**
- **better emotion regulation & empathy**

Research by Bornstein & Tamis-LeMonda (1989),Davidov & Grusec (2006), Landry et al. (2001), Spencer & Meadow-Orlans (1996), Tamis-LeMonda et al. (2001), Volker et al., (1999), and Wakschlag & Hans (1999).

Responsiveness items

Parent . . .
1. pays attention to what child is doing
2. changes pace or activity to meet child's interests or needs
3. is flexible about child's change of activities or interests
4. follows what child is trying to do
5. responds to child's emotions
6. looks at child when child talks or makes sounds
7. replies to child's words or sounds

Domain 3: Encouragement

Definition: Active support of child's exploration, effort, skills, initiative, curiosity, creativity, and play.

Encouragement is related to
- **less negativity**
- **willingness to try challenging tasks**
- **better cognitive & social development**
- **better language development**

Research by Frodi et al. (1985), Ispa et al. (2004), Hart & Risley (1995), Landry et al. (1997), and Kelly et al. (2000).

Encouragement items

Parent . . .
1. waits for child's response after making a suggestion
2. encourages child to handle toys
3. supports child's choices or activity changes
4. supports child in doing things on his/her own
5. verbally encourages child's efforts
6. offers suggestions to help child
7. shows enthusiasm about what child is doing

Domain 4: Teaching

Definition: Shared conversation and play, cognitive stimulation, explanations, and questions.

Teaching is related to
- • **better cognitive & social development**
- • **better language development**
- • **more conversation**
- • **more emergent literacy skills**

Research by Baumwell et al., (1997), Carpenter et al., (1998), Hart & Risley (1995), Hockenberger et al. (1999), Laasko et al. (1999), and Tamis-LeMonda et al., (2001).

Teaching items

Parent . . .
1. explains reasons for something to child
2. suggests activities to extend what child is doing
3. repeats or expands child's words or sounds
4. labels objects or actions for child
5. engages in pretend play with child
6. does activities in a sequence of steps
7. talks to child about characteristics of objects
8. asks child for information

HOW TO USE PICCOLO WITH FAMILIES


(or any parenting observation measure)

How do I select PICCOLO observation activities?

Select activities that . . .

- fit program goals
- can be done in limited space
- engage both parent and child
- last at least 10 minutes

Activities for PICCOLO observations

- Picture books (*Hungry Caterpillar, Good Night Moon*, etc.)
- Puzzles, blocks, play-dough, art materials
- Pretend play toys
- Family routines
- Planned home visit activities
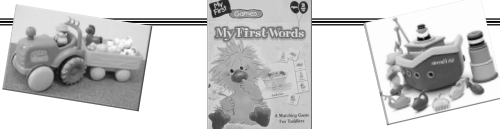
Tips for doing PICCOLO Observations with Families

- Tell parents you'll do observations regularly.

- Be flexible--re-schedule if needed.

- Offer choices of activities.

- Do the observation where the family is comfortable.

- If video recording, offer a copy of the video.

When to do PICCOLO Ratings

• "Live" *

• Immediately after home visit--while memorable

• Later while watching video (most common)
  • alone--identify strengths to support
  • with parent--evidence-based intervention
  • with supervisor--for reflection and planning

Video-recording Guidelines

• Set up in a quiet place.
• Both parent and child in viewfinder.
• Faces, hands, materials in viewfinder.
• Don't face a light or sunny window!
• Check viewfinder
• Record for 10 minutes.
• Check viewfinder

When you use PICCOLO with parents be. . .

Positive: Emphasize what parents do well and often.

Practical: Ask when parents can do more **PICCOLO** behaviors as part of regular activities.
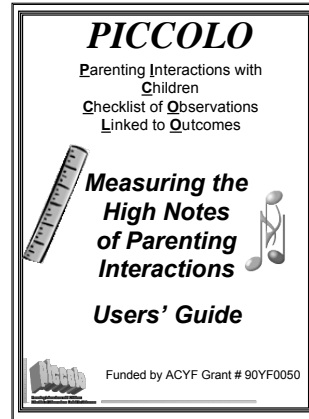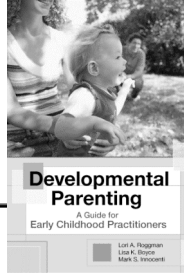
Culturally Sensitive: Ask parents what kinds of parenting interactions are important to them.

How to use PICCOLO to plan intervention

1. Look for highest **PICCOLO** domain & item scores.

2. Ask what daily activities involve those behaviors.

3. Plan with parent to do that activity on a home visit.

4. During activity, ask about related parenting behaviors in that and other domains.

Strategies that work with PICCOLO

- Focus on child development
- Engage parent & child together
- Observe & comment on **PICCOLO** behaviors
- Plan activities together
- Involve the family in activities
- Use family activities & routines
- Be responsive, flexible,
  & supportive

Developmental Parenting
A Guide for
Early Childhood Practitioners

Lori A. Roggman
Lisa K. Boyce
Mark S. Innocenti

PICCOLO
Parenting **I**nteractions with
Children
Checklist of **O**bservations
Linked to **O**utcomes

Measuring the High Notes of Parenting Interactions

Users' Guide

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Support materials available for **PICCOLO**

PICCOLO
Training DVD

PICCOLO Researchers
Lori Roggman FaLori@cc.usu.edu
Mark Innocenti Minno@eiri.usu.edu
Gina Cook
Vonda Jump
Jim Akers
Katie Christiansen
Cora Price
LauraMichele Gardner

Program Partners
Bear River Head Start, Logan, UT
Davis Early Head Start, Layton, UT
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