Coaching Parents to Implement a Social-Communication Approach with Children with Autism

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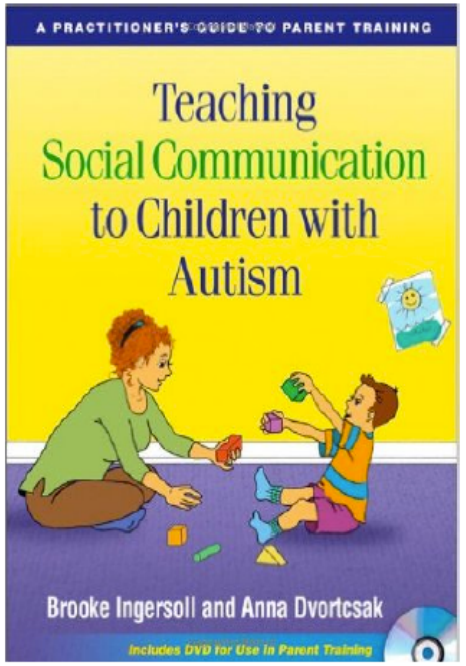
Project IMPACT



Agenda

- Overview of Project ImPACT
- Imitation and autism
- Research study
- Application
- Future directions

Project ImPACT

(Improving Parents as Communication Teachers)

- Manualized approach that coaches adults to promote social-communication skills during play and daily routines.

Project ImPACT

(Improving Parents as Communication Teachers)

BROOKE INGERSOLL, PHD, BCBA-D

Project ImPACT Research

Project ImPACT is considered an established intervention

Ingersoll & Berger (2018) Parent engagement with a telehealth-based parent-mediated intervention program for children with autism spectrum disorders: Predictors of program use and parent outcomes. *Journal of Medical Internet Research, 17*(10).

Ingersoll, B., Berger, N., Carlsen, D., & Hamlin, T. (2017). Improving social functioning and challenging behaviors in adolescents with ASD and significant ID: A randomized pilot feasibility trial of reciprocal imitation training in a residential setting. *Developmental Neurorehabilitation, 20,* 236-246.

Pickard, K.E., Wainer, A.L., Bailey, K., & Ingersoll, B. (2016). A mixed-method evaluation of a telehealth-based parent-mediated intervention for children with ASD. *Autism: International Journal of Research and Practice, 20,* 845-855.

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Project ImPACT Research

Ingersoll, B. & Wainer, A. (2013). Initial efficacy of Project ImPACT: A parent-mediated social communication intervention for young children with ASD. *Journal of Autism and Developmental Disorder, 43, 2943-295.*

Ingersoll, B., Walton, K., Carlsen, D., & Hamlin, T. (2013). Social intervention for adolescents with low-functioning autism: Initial efficacy of Reciprocal Imitation Training. *American Journal of Intellectual and Developmental Disabilities, 118,* 247-261.

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Project ImPACT

(Improving Parents as Communication Teachers)

- **Skill acquisition targets:**
  - Social-engagement
  - Language/communication
  - Imitation
  - Play

IMITATION IS the foundation of social-communication development

- Imitation is a “pivotal skill” we know children need to develop social-communication skills (Uzgiris,1981).

- **Reciprocal (social) imitation**
  - serves to express interest and engagement between caregiver and child
  - leading to the development of communication, play skills, social skills, etc. (Halliday & Leslie, 1986; Mueller & Lucas, 1975).

IMITATION IS the foundation of social-communication development

Imitation defined: copying the behaviors of others.

Examples of behaviors that can be imitated:

- ***actions with objects*** (such as banging on a drum or pushing a car)
- ***gestures and body movements*** (such as clapping hands or waving)
- ***sounds or words***

Imitation in children with ASD

- Deficits in imitation skills are a core characteristic in people with ASD (Sigman, Dijamco, Gratier, & Rozga, 2004).

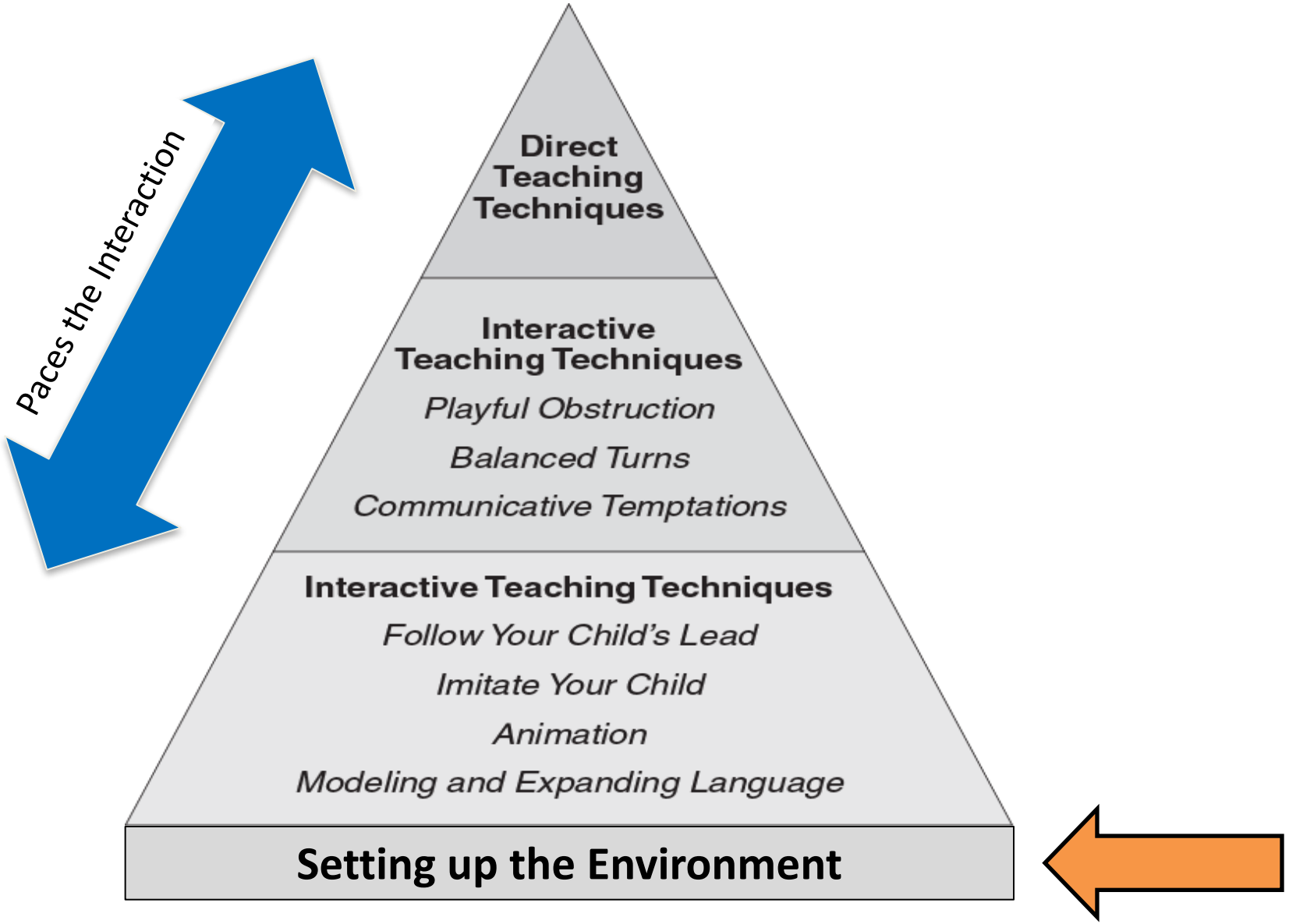
- Children with ASD have been found to:
  - engage in less spontaneous imitation than typically developing children (Whiten & Brown, 1999).
  - have greater deficits in imitation during naturalistic conditions (Ingersoll, 2008; Stone et al., 2004).

Project ImPACT

(Improving Parents as Communication Teachers)

- Two manuals included:
  - Parent
  - Trainer
- Schedule/goal development
- Outlines of strategies
- Fidelity checks
- Strategies build upon one another to make a comprehensive curriculum

Project ImPACT



Reduce Distractions

- Limit distractions such as phones, music, limiting foot traffic through play area.
- Turn off television. If this is a problem use a gradual fade technique.
- Decide which few toys will remain in view and acceptable and put other toys out of reach, or out of view.

Define a Play Space

- Define a play space – one that has visual and physical boundaries.
- Limits distractions and creates physical proximity between parent and child.
- Play space may be best in a child's bedroom, another room in the home, or rearranging of furniture in the living room.

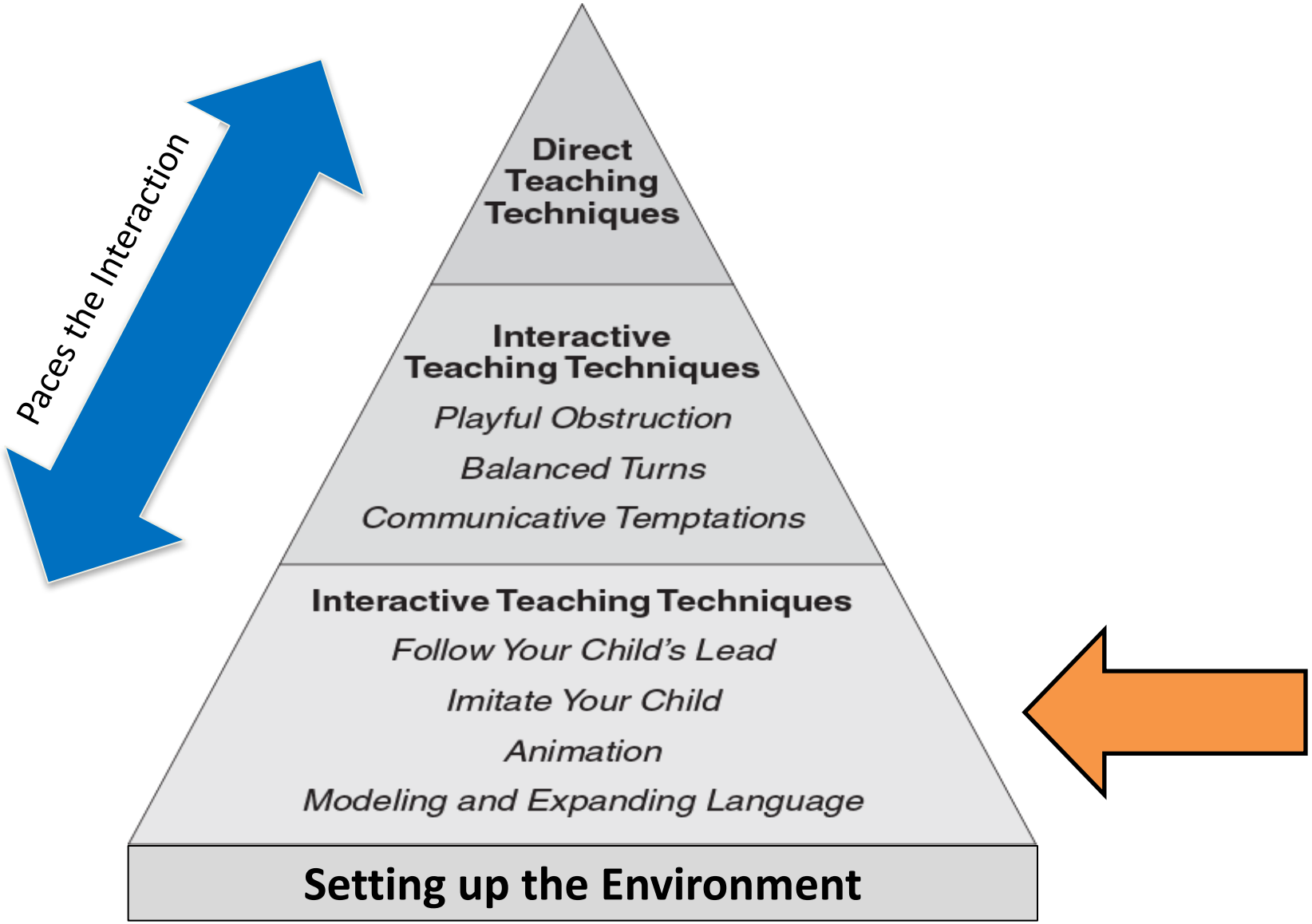
Set Up & Rotate Toys

- Children are most engaged when toys are rotated every 2-3 weeks.
- **Identify 6 – 8 pairs of toys** (two of each toy or similar toys) that the child enjoys.
- **Set up the pairs of toys in the play environment** so that the child can choose between the toys.

Schedule Playtime

- Schedule two, 20 minute blocks of time for social-communication (imitative) play.
- OR break into 5-minute segments throughout the day.
- Peers can be taught to use techniques.

Project ImPACT



Follow the Child's Lead

- Using the child's interests to teach increases generalization and spontaneous language.

- This technique is used to increase engagement and motivation during the play sessions.

Follow the Child's Lead (cont.)

- Let the child choose the activity.
- Stay face to face with the child.
- Join the child in play.
- Comment on play, but don't ask questions or give commands.
- Control the situation – be consistent with rules and consequences (do not let the child destroy property, hit others).

Imitate the Child

- Imitate play with toys.
- Imitate gestures and body movements.
- Imitate vocalizations.
- Only imitate appropriate behavior (flapping turned into clapping).

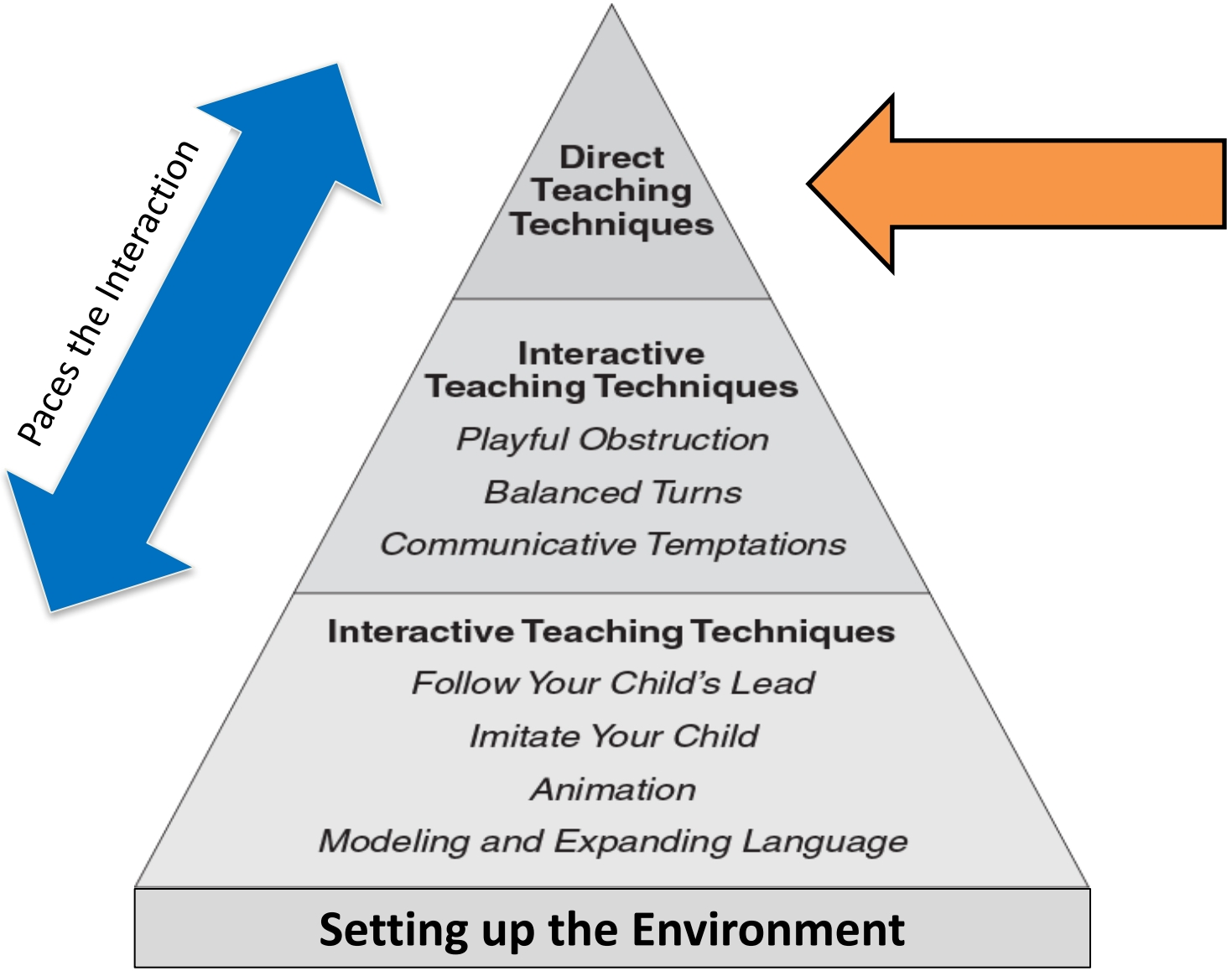
Animation

- Be excited about the activity – maintain eye contact, smiling and laughing, joining child in activity of interest.
- Exaggerate gestures, facial expressions, and vocal quality.
- Use attention getting words – “uh-oh, oh-no, wow”
- Wait with anticipation – pause with an exaggerated look.

Model & Expand Language

- Model language for your child determined by the child's developmental level.
- Expand by adding a word or two to what the child says.
- Eliminate demands (green block vs. what color block is it?).
- Be repetitive!

Project ImPACT



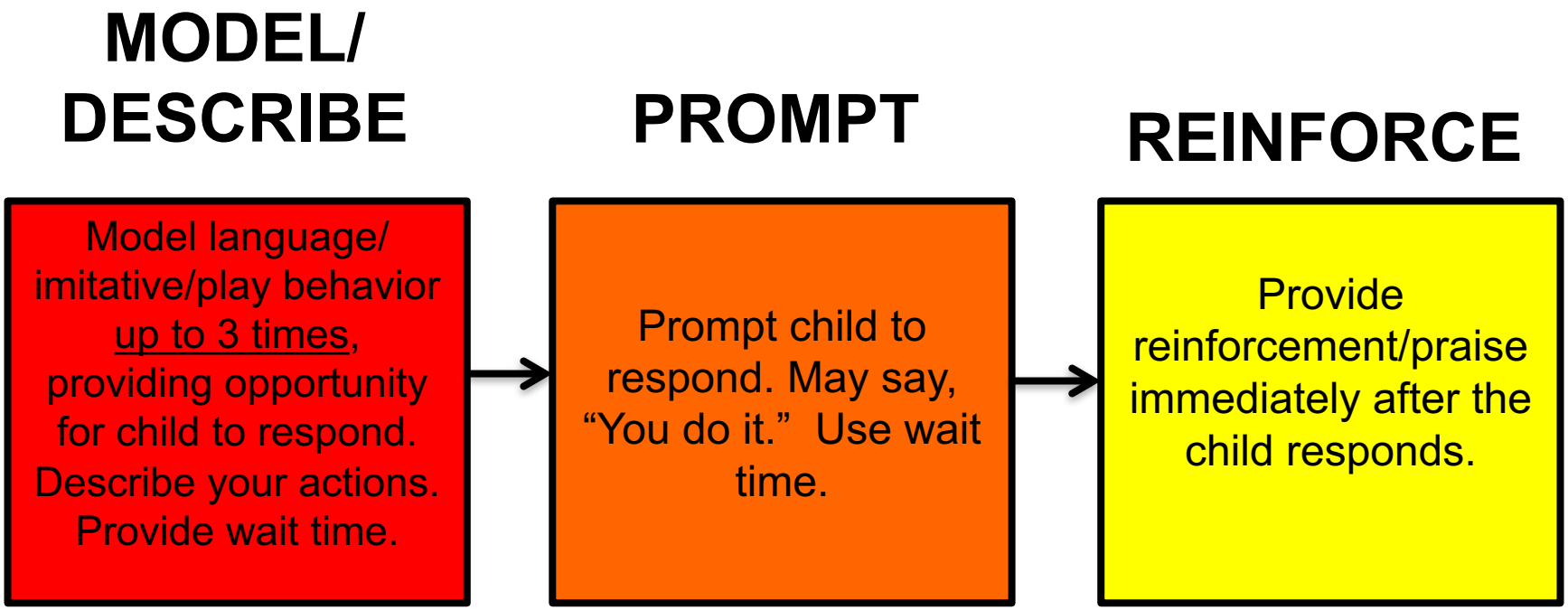
Six Steps to Direct Teaching

1. Use Follow the Child's Lead
2. Create an opportunity for the child to communicate.
3. Wait for the child to communicate.
4. Prompt the child to use more complex language, imitation, or play skills.
5. Provide a more supportive (helpful) prompt as necessary.
6. Reinforce and expand on the child's response.

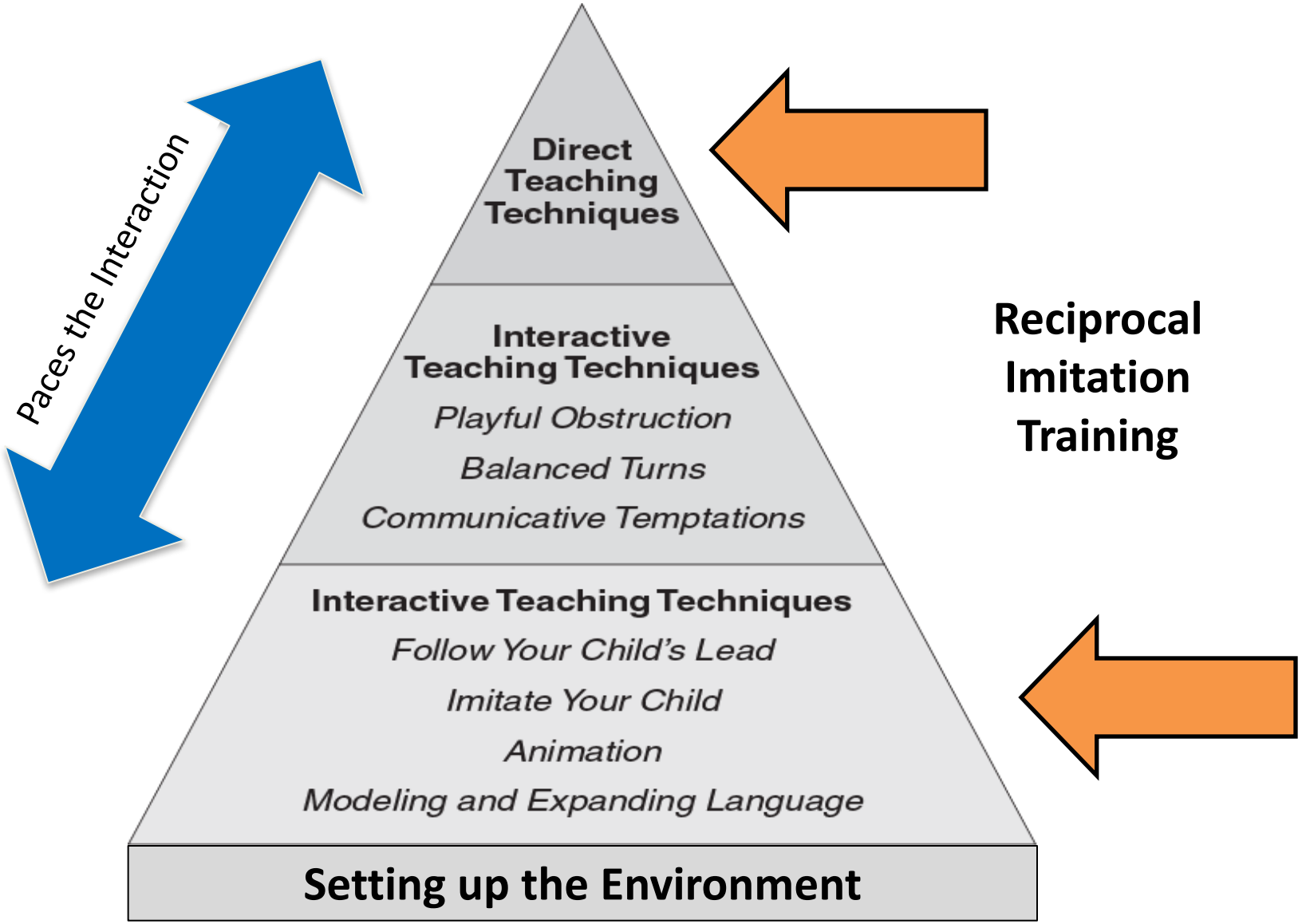
When and What to Prompt

- When to prompt – prompt only when the clinician/parent has the child's attention.
- The best time to prompt is when the child is highly engaged
- Prompt the child to use a skill that is more complex than the skill he currently has.

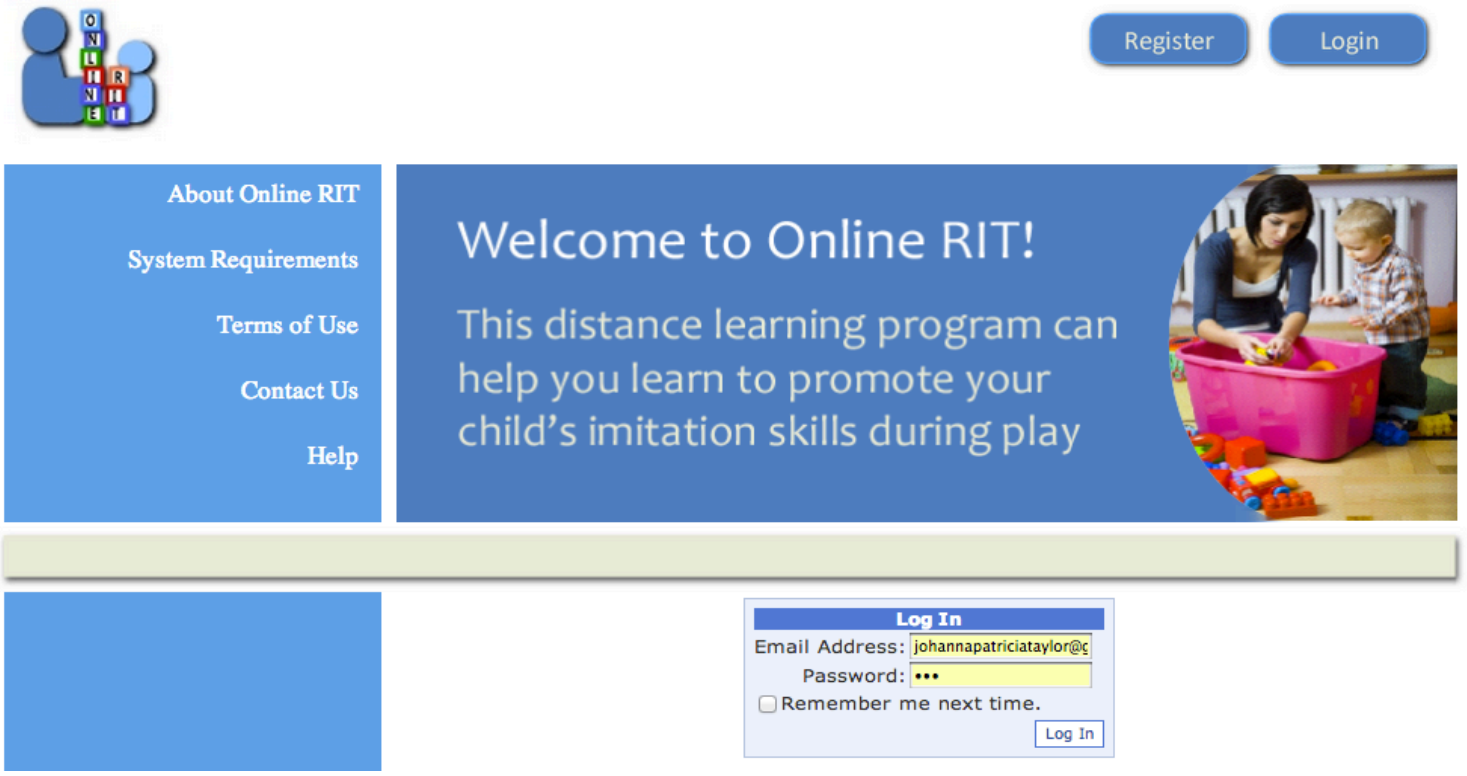
Increasing the Complexity of Language, Imitation, or Play



Research on Project ImPACT



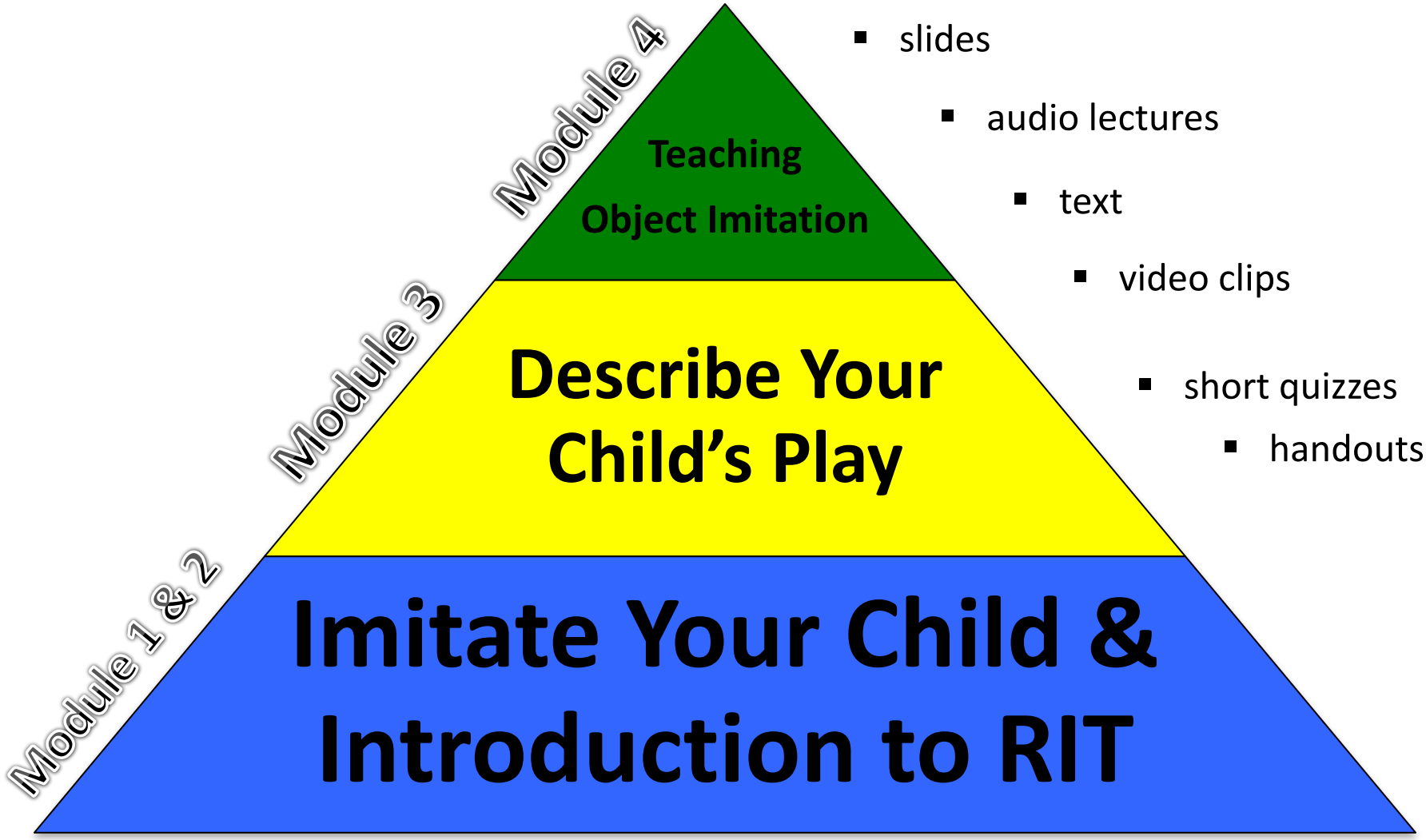
Self-directed Internet-based Modules



AUTISM SPEAKS™
It's time to listen.

Allison Wainer & Brooke Ingersoll

Self-directed Internet-based Modules



Homework: 20-minute play session practice each day.

In vivo Coaching

- Review of parent practice.
- Video examples of parent's use of strategies.
- Question/answer opportunities.
- Brief review of concepts covered in module(s).
- Therapist modeling of strategies.

In vivo Coaching

- Parent practice of strategies while researcher observes and coaches.
- Constructive and positive feedback.
- Independent parent-child 10-minute play session with no therapist feedback (data collected).

Study Aims

PARENT:

① RIT strategies use

② maintenance of strategies

③ parent fidelity

④ stress

CHILD:

① motor imitation

② social-engagement*

Participants

Children:

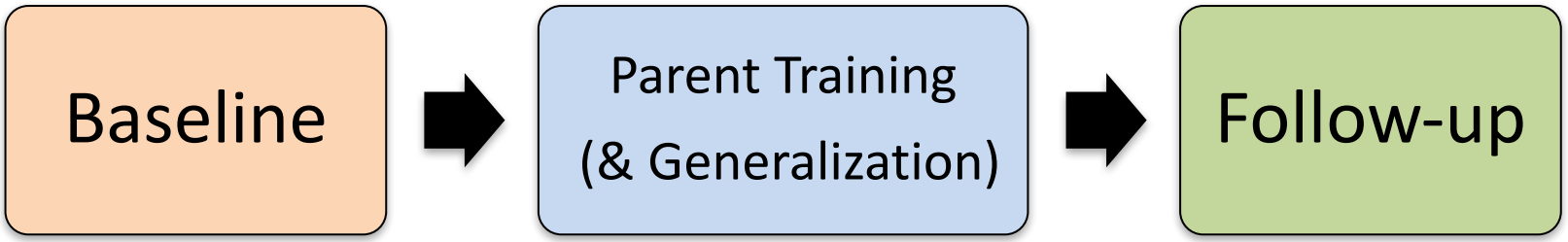
- Four children diagnosed with autism.
- Ages ranged from 2 to 4 years.
- All severe and below developmental level with the exception of Nikhil.

Parents:

- Four mothers.
- Ages ranging from 34 to 41 years.
- Degrees ranging from associates to doctorate.

Research Design/Procedures

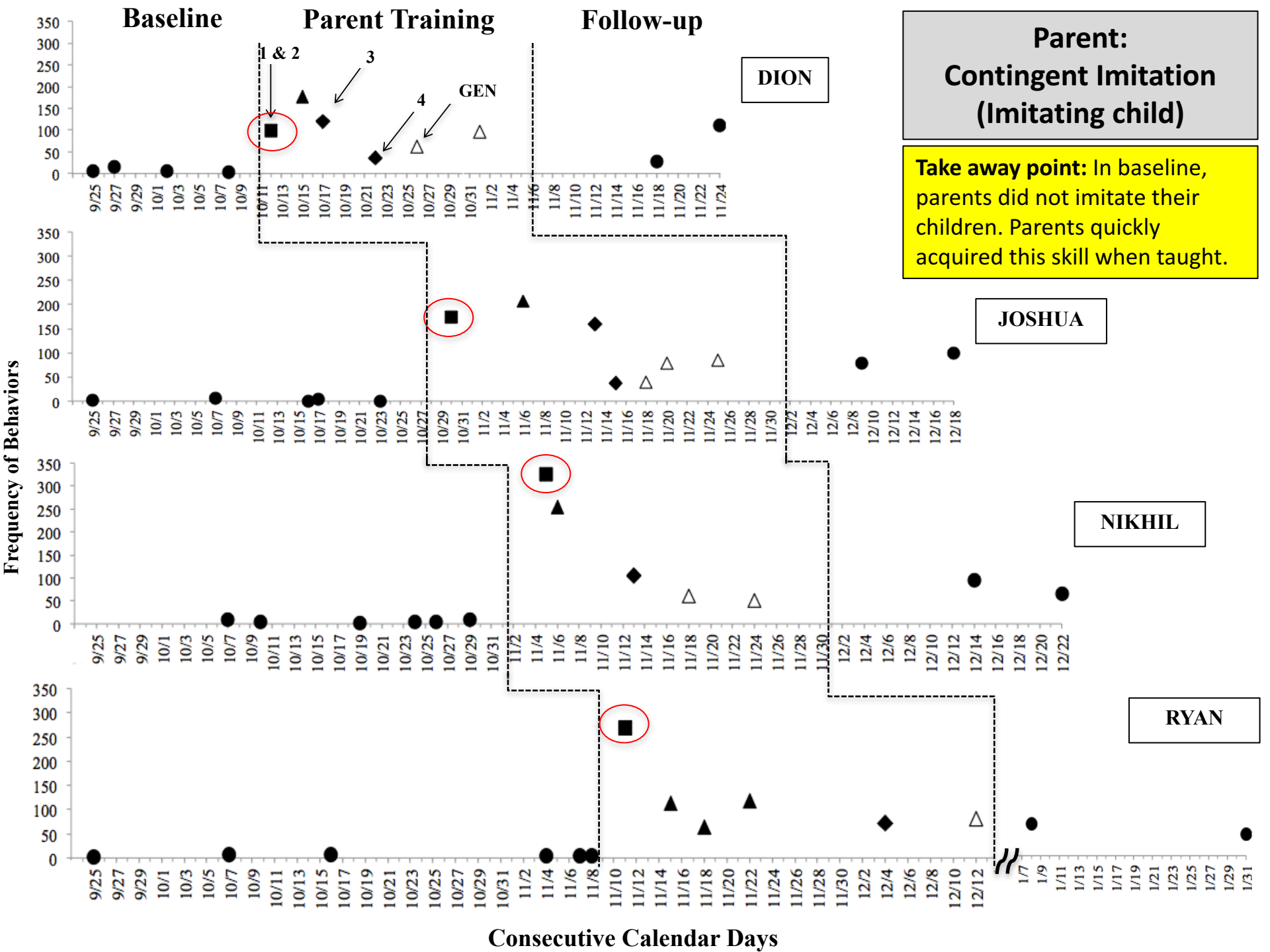
- **Multiple-probe design across four participants**

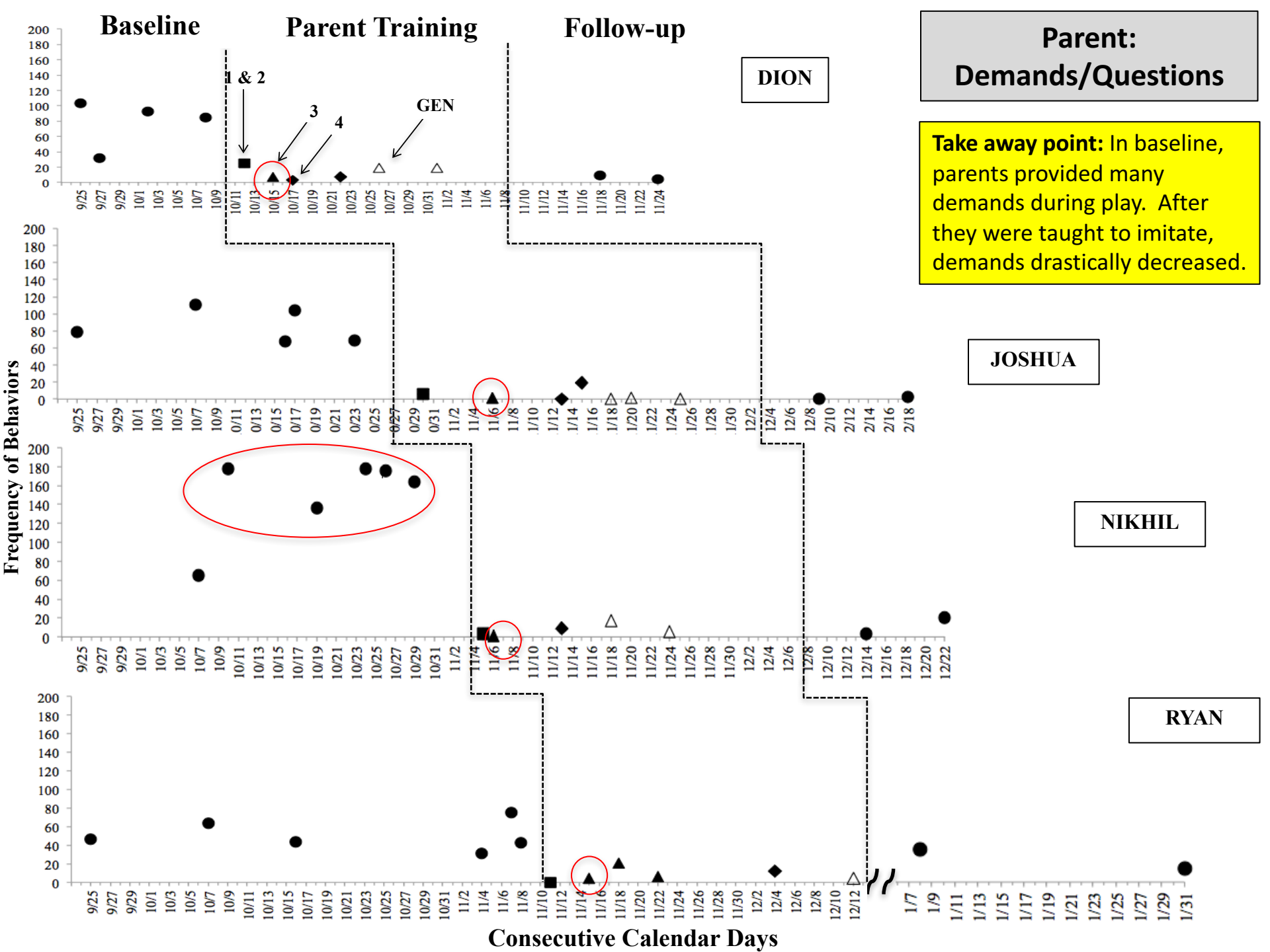


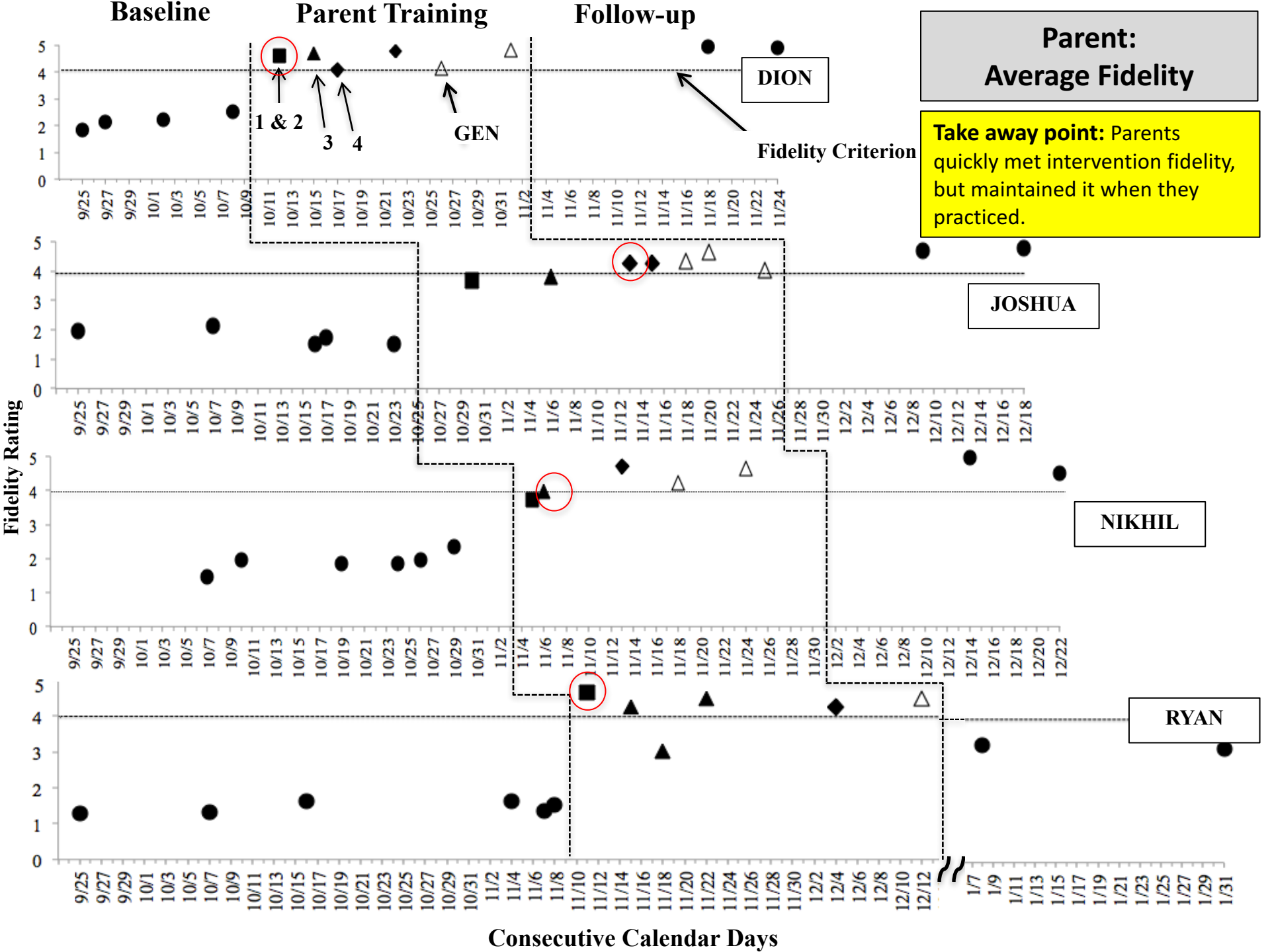
Results: Duration/Adherence

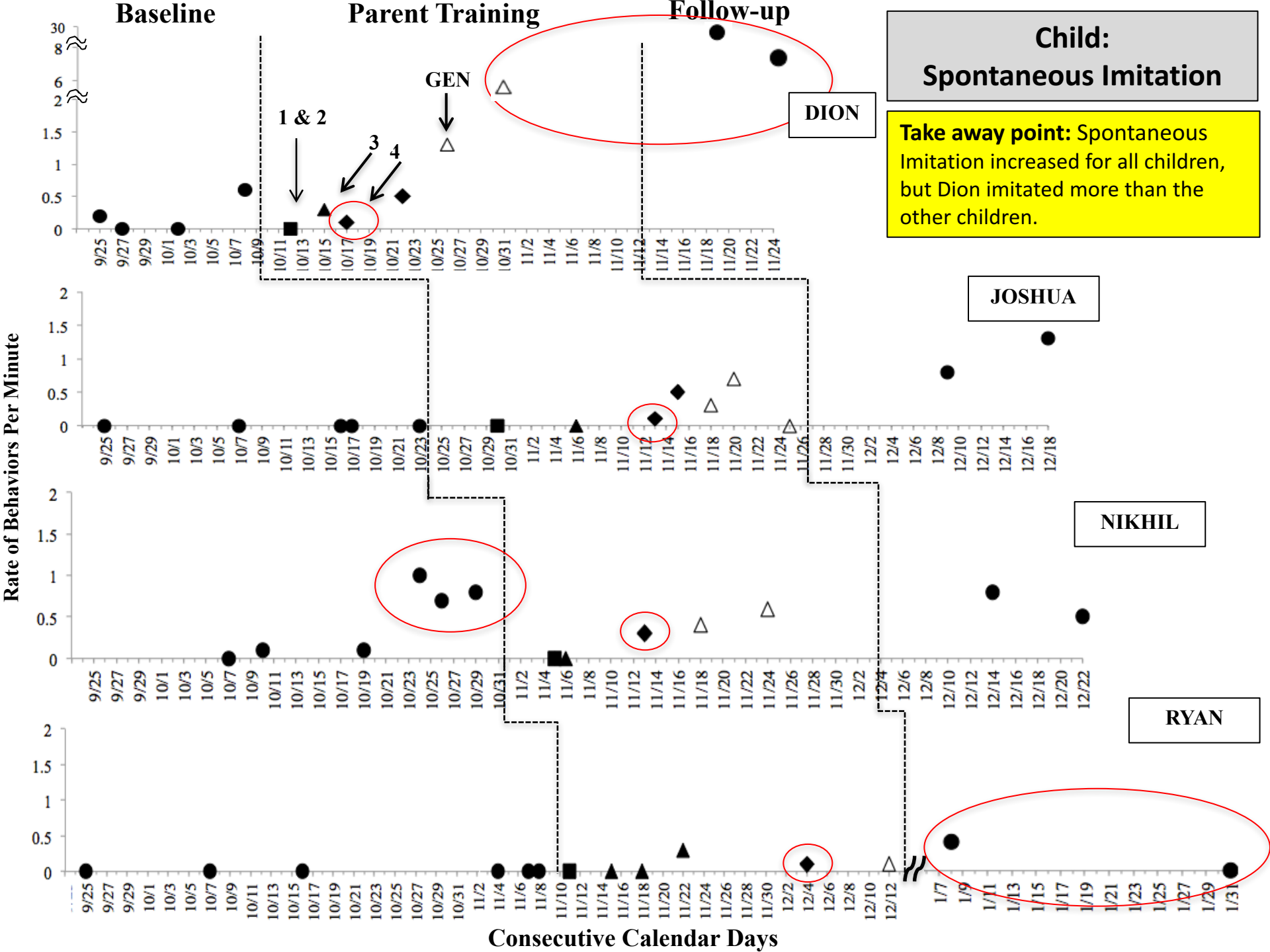
- Total treatment sessions/weeks:
  - Treatment ranged from 5 to 7 sessions (3.4 – 4.9 weeks)

- Cancellations/Parent Data Collected on Homework:
  - Cancellations ranged from 0 – 9
  - 2 parents did not collect homework data, two parents collected 15 and 18 sessions of data.


Baseline
Parent Training
Follow-up
1 & 2
3
4
GEN
DION
JOSHUA
NIKHIL
RYAN
Parent:
Contingent Imitation
(Imitating child)
Take away point: In baseline, parents did not imitate their children. Parents quickly acquired this skill when taught.
Frequency of Behaviors
Consecutive Calendar Days


Baseline
Parent Training
Follow-up
1 & 2
3
4
GEN
DION
JOSHUA
NIKHIL
RYAN
Parent: Demands/Questions
Take away point: In baseline, parents provided many demands during play. After they were taught to imitate, demands drastically decreased.
Frequency of Behaviors
Consecutive Calendar Days


Baseline
Parent Training
Follow-up
Parent:
Average Fidelity
Take away point: Parents quickly met intervention fidelity, but maintained it when they practiced.
DION
JOSHUA
NIKHIL
RYAN
1 & 2
3
4
GEN
Fidelity Criterion
Fidelity Rating
Consecutive Calendar Days


Baseline
Parent Training
Follow-up
GEN
1 & 2
3
4
DION
JOSHUA
NIKHIL
RYAN
Child:
Spontaneous Imitation
Take away point: Spontaneous Imitation increased for all children, but Dion imitated more than the other children.
Rate of Behaviors Per Minute
Consecutive Calendar Days

Practical Application

- **Educators/Child care providers:**
  - How do you design programs for social-engagement in the individuals you support?
  - Are you providing instruction that promotes spontaneous, generalized responses in behavior?
  - How do you continue to engage parents to practice and use the skills they have learned?

Conclusions & Future Directions

- Using a combination of Internet-based modules and in vivo coaching is effective for teaching parents.
- More research needs to be conducted!
- Application within the field of early intervention.

THANK YOU!

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QUESTIONS?

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