The LEAP Preschool Model

PRE-PLANNED, TARGETED STRATEGIES for ACTIVE MEANINGFUL ENGAGEMENT

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August 8, 2018
What is LEAP Preschool?

- LEAP Preschool (Learning Experiences- An Alternative Program for Preschoolers and Parents) – located in Pittsburgh, PA for 37 years old

- An inclusive preschool for typically developing children and peers diagnosed with autism spectrum disorder – (ASD) 3:1 Ratio

- Teaches typically-developing peers to facilitate the social and language skills of children with autism

- A comprehensive parent education program

- A research and training model- funded continuously by OSEP since 1981

- A network of over 100 replication sites (CO, PA, FL, SC, WA, OR, MT, MN, WI)

- A science-based program (Dr. Phillip Strain: “today is baseline for tomorrow’s innovation”)
HISTORY of LEAP Preschool

1981

1st LEAP Classroom – 12 children
Dr. Marilyn Hoyson

1984

3 LEAP Classrooms – 2 sessions per classrooms

1994

Expansion to 2 collaborate classrooms with other preschool programs

1996

LEAP Preschool in Pittsburgh became a program of The Watson Institute - APS

2000

LEAP USA- Randomized Controlled Trial Study

2011

Longitudinal Follow up of LEAP-USA RCT Participants

2017

80+ LEAP Preschool replication sites throughout US and Canada

Continues to serve 40 children with ASD per year across Across 7 counties in western PA

Provides quality early childhood inclusive programming For a total of 120 children per year (40 ASD)
Positive Outcomes for Children: Intensity of Intervention

**Quality** of time spent in a classroom is everything

- an array of evidence-based practices delivered to fidelity
- faithful to early childhood beliefs
- an engaging classroom
- fun environment
QUALITY of TIME /INTENSITY – Defined:

Getting to *quality outcomes* is a complex process that involves the following components:

- Social validity (functionality) of goals
- High numbers of meaningful responses opportunities (active engagement)
- Comprehensiveness of intervention
- Fidelity of intervention delivered
- Data based decision making
FORMULA for SUCCESS:

Social Validity of Goals  X
Response Opportunities  X
Comprehensiveness of Intervention  X
Fidelity of intervention delivered  X
Data based decision making  X

QUALITY OUTCOMES/INTENSITY
Past Research: Child & Family Outcomes

- Children in a LEAP Classroom generally show reduction in symptoms of ASD after 2 years of intervention, comparison children do not (Strain & Cordisco, 1991).

- On observational measures taken in school and at home, LEAP children are far more socially engaged and appropriate (Strain, Goldstein & Kohler, 1996).

- Social Gains for LEAP children maintained following program participation with 24 of 51 children enrolled in regular education elementary school classes with no signs of developmental regression (Strain, 1996).

- Current research….2011: The fidelity with which teachers implemented LEAP strategies predicted favorable outcomes for children with ASD…and these procedures and outcomes were favorably viewed by teachers.
Key Intervention Components

- Ongoing learning opportunities are embedded into typical preschool routine
- Social Skills Curriculum for ALL children
- Transdisciplinary model of service delivery
- Ongoing, daily data collection used to drive intervention
- Using a broad array of evidence-based practices (i.e., PECS, PRT, Errorless Learning, Incidental Teaching, Peer-Mediated Intervention, Structured Teaching)
- Parent skill training curriculum
- Functional goals and objectives determined largely by family requests
What makes Goal Functional?

- Focus is on communicating wants, needs, likes and dislikes
- Participation in typical preschool activities and routines
- Interactions with typical peers
- Improvement of independence, participation and communication
- Links directly to parent’s availability and skill(s) related to everyday routines
Individualized Instruction

- Identify children’s needs, interests, and abilities
- Plan for varying levels of development
- Target functional goals and objectives for children
- Follow children’s lead by responding to ongoing play and initiations that increase their engagement
Naturalistic Teaching Strategies in play and during structured group times

- Embedded in routine activities and settings
- Child directed
- Teacher planned
- Based on the child’s ongoing interest and activities
- Natural antecedents and consequences
- Focus on teaching functional skills
- Encourages high quality engagement
Embedding IEP Goals/Objectives into the Daily Routine

**Routine Activities**
- activities that happen at school or at home on a regular basis such as meals, dressing, washing hands, transitions

**Planned Activities**
- activities that require adult organization; small group; large group activities

**Child-Initiated Activities**
- activities that the child sets up, creates or begins on his/her own; play
FOCUS ON 4 I’s

- Instruction
- Individualization
- Intentionality
- Intensity
**Embedding IEP Goals across the preschool day**

**Michael’s IEP Objectives:**

- Responds to one step directions
- Sit and attend during structured group times
- Sort objects by category, description or name
- Initiate and respond to other children
- Imitate motor actions

<table>
<thead>
<tr>
<th>Block Area</th>
<th>Circle Time</th>
<th>Art Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build “castle” Peer hands blocks to Michael</td>
<td>Michael holds prop for song when attending</td>
<td>Sort crayons by color to clean up</td>
</tr>
<tr>
<td>Roll ball to knock down tower</td>
<td>Follow direction – “Give me the book”</td>
<td>Limit number of glue bottles – hand and receive with peer</td>
</tr>
<tr>
<td>Sort blocks, animals and people during clean up</td>
<td>Michael passes out the props</td>
<td>Imitate motor behavior – shake glitter on paper</td>
</tr>
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</table>
DATA DRIVEN INTERVENTION
### Data System

Data sheet includes:

- Skill – written objectively
- Criteria and Evaluation Schedule
- Level of prompting identified
- Self graphing data sheet
- Each child’s data book has 10-12 goals
- Rating is scored after observing / presenting information at least 3 X – then rate 2/3 or lowest of 3 trials.

**Example:**
Goal: giving an item to another child

**Trial 1:** verbal prompt (“Give this to Joey”)

**Trial 2:** verbal/gestural prompt (“Give this to Joey” as you point to Joey)

**Trial 3:** verbal prompt (“Give this to Joey”)

<table>
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**Evaluation Schedule**

<table>
<thead>
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<th>Area</th>
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<td>Level</td>
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**Notes:**

1 = Physical Prompt
2 = Verbal Prompt
3 = Gestural Prompt
4 = Independent
Evaluation and Data Collection

1. Data taken during activity OR ASAP after teaching session
2. Data taken by all staff (schedule posted for who takes data on each given day)
3. At least 2-3 data points per week per goal
4. 10 data points per month
5. Check for progress after 20 data points
6. If no progress, add SDI’s
7. Evaluate for generalization
Teacher: Checks Data

- 1 data sheet per goal/objective criterion level on data sheet
- Check for all team members taking data
- IEP’s are updated from data
- Data is moving/ or step change added
- Teacher reviews data regularly
- Monthly reviews with supervisor
- Meets with team regularly
Setting up SOCIAL Opportunities
Benefits of Inclusion - Positive Classroom Community

Peer Influence - Peer Mediation

- Invites others to activities
- Takes hand and leads child
- Passes out items
- Models appropriate behavior
- Initiates social interactions
- Gives play directions
- Compliments and helps others

Benefits to Peers

- Everyone is an important member of a classroom community - All children have value
- Everyone has strengths and challenges
- All children are teachers and learners
- Strong interpersonal skills - better communicators, self confidence, self esteem, better empathy skills
Social Skills Curriculum

- Look at my friend
- Say my friend's name
- Keep trying - tap on shoulder

Social Skill we are working on: Asking For What I Want
Teaching Social Skills

I. Introduce general topic and describe skill
II. Demonstrate skill
III. Peer practices skill with adult
IV. Practice with target child
V. Reinforce children’s efforts

LEAP Preschool Social Books

• Playing with My Friends
• Sharing with My Friends
• Helping My Friends
• Wait, Wait, Wait
• Nice Things to Say
• When I look
• Asking for What I Want
• Getting My friend’s Attention
• Look, Say, and Listen
INCLUSION: Promoting Social Interaction

**Child Skills**

1. **Foundation**
   - Learning how to play with toys
   - Being near other children
   - Holding hands
   - Handing/receiving
   - Learning friend’s names

2. **Framework**
   - Sharing
   - Helping each other
   - Taking turns
   - Showing affection

3. **Details**
   - Social exchanges
   - Conversations
   - Staying on topic, maintaining play ideas
   - Coordinating roles and themes
   - Working together toward goal

**Teaching Strategies**

- Direct prompting/reinforcement
- Environmental Arrangement
- Material selection
- Routines

- Direct instruction
- Role playing
- Indirect prompting
- Teaching altruistic behavior

- Peer mediation
- Social stories
- Buddies
- Social play activities
- Scripting
Teacher Training and Support
Quality Program Indicators (QPI)

Classroom Organization and Planning

Teaching Strategies

Teaching Communication Skills

Promoting Social Interactions

IEP’s and Measuring Progress

Interactions with Children

Providing Positive Behavioral Guidance

Interactions with Families

Promoting Social Interactions

Providing Positive Behavioral Guidance

Interactions with Families

Promoting Social Interactions

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Interactions with Families
Supporting Teachers

- Training - Quality Program Indicators (QPI)
- Teams - individually completes assessment and scores are averaged
- Priorities identified
- Classroom Goals
- Monthly Meetings
- Independent Evaluator
Classroom Goal to Increase Interactions Among Children

### Busy Bees Classroom:

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre</th>
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<tr>
<td>Classroom Organization</td>
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<td>Teaching Strategies</td>
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<td>Teaching Communication</td>
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<td>Promoting Social Interactions</td>
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<td>Positive Behavior Guidance</td>
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<td>IEP’s &amp; Measuring Progress</td>
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<td>Interactions with Children</td>
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<tr>
<td>Interactions with Families</td>
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<tr>
<td>Overall Average</td>
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*Prompted Social Opportunities in 1 hour*
Last but not least.......
Supporting Families

**Partnership**
- Open Communication/Mutual Trust
- Member of Educational Team
- Family input into child’s educational program

**Skill Training**
- Skill Training Curriculum - via workshops, individual and self-study
- Individual Child Goals for home/community
- Problem solving individual issues

**Coordination of Services**
- Sharing information with Professionals on behalf of team and family
- Transition Planning
- Links families with other resources