Advancing Quality School Readiness Programs in Early Childhood through Systematic Change

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With grants from IES, NIH, and USDOE, the Children’s Learning Institute experimentally confirmed the necessary combination of key instructional components that maximize positive change for teachers and children across a wide variety of early preschool programs.

These results provided the design for TEEM: The Texas Early Education Model.
“High quality preschool classroom experiences: those that maximize the extent to which children are prepared academically and socially to benefit from kindergarten”

(Pianta et al, 2005; Bryant et al., 2002)
Focus of state policy discussions about assuring quality pre-k programs needs to “be centered less on policies regulating a teacher’s amount of education or degree type and more on professional development opportunities, focus on the classroom as an instructional setting, children’s actual educational experiences in that setting, and teachers’ expressed knowledge and skills.”

(Pianta et al., 2002)
What is the Focus for Preschool Children?

• Develop phonological awareness, letter knowledge and early writing
• Understand and use increasingly complex and varied language
• Develop and demonstrate an appreciation for books
• Develop math skills
• Develop social and emotional competence
• Use language to communicate for a variety of purposes

To become School Ready!
Instructional Approaches: 5 Key Areas for Quality

1. Use of **Responsive Interaction** style to support learning
2. **Content** that predicts school readiness
3. Planning that takes advantage of recent brain research: development of **memories**
4. A **balance** of teaching strategies
5. Flexible **groupings** of children for learning—one-to-one, small groups, large groups
6 Key Essentials for Optimal Support of Young Children’s Cognitive and Social Development

- Rich language input
  - Use of labels for objects & actions
  - Providing explanations & rationales
  - Frequent book reading on many topics
- Responsiveness to children’s signals
- Maintaining and building on interests
- Fewer restrictions
- More choice providing strategies
- Monitoring children’s behavior
Patterns of Maternal Responsiveness & Growth in Cognitive and Social Skills
6 months through 4 years

Cognitive – social age in months

Age in years

- High/High
- Inconsistent
- Low/Low
Focus of Teacher Attention: Responsive Style + Content Plan

Build Experiences:
Memories + Balance + Variety in groupings
Goal:
Bring content together with responsive interaction style
**Three Key Domains Research Says Predict Reading Success**

**Oral Language**
They acquire vocabulary that informs them about the world; they use language to construct relationships and categories, to figure things out, and to solve problems. They also use language to express ideas and participate in social contexts.

**Phonological Awareness**
They demonstrate sensitivity to, manipulation of, and use of sounds in words.

**Print Knowledge**
They demonstrate knowledge of the units of print (letters, words) and ability to translate print to sound and sound to print (letter-to-sound) and understanding of book and print concepts.
Skill Domains in Mathematics

**Numbers & Operations**
Numbers can be used to tell us how many, describe order, and measure.

**Geometry**
Geometry can be used to understand and to represent the objects directions, locations in our world and relationships between them.

**Measurement**
Comparing and measuring can be used to specify “how much” of an attribute (e.g. length) objects possess.

**Data Analysis**
Data analysis can be used to classify, represent, and use information to ask and answer questions.

**Algebra**
Patterns can be used to recognize relationships and can be extended to make generalizations.
**Key Early Social Domains**

**Understanding Emotions**: Inferring basic emotions from expressions or situations and understanding the consequence of basic emotions.

**Behavioral & Emotion Regulation**: Use of emotional gestures and verbalizations to express feelings in a social situation; inhibition of socially disapproved expressions of emotion (hitting, tantrums, biting)

**Initiating and Maintaining Positive Engagement with Peers**: Ability to be effective in interactions with peers, the result of organized behaviors that meet short-term and long-term developmental needs (cooperating, listening, turn taking, seeking help)
SCAFFOLDING

- pacing
- demonstrations
- questioning
- commenting
- challenge new discoveries
- gestures
- modeling
- find teachable moments
- observation
- responsiveness

Skills
Phonological awareness
Background knowledge
Vocabulary

Bringing Content and Responsive Interactions Together
Incorporating what research tells us about the appropriate developmental sequence within content areas.
Developmental Progression
From Younger to Mid to End of Pre-K

Younger
Language Level:
Expresses ideas with two to three word utterances

Mid
Language Level:
Talks in complete sentences and has a vocabulary of 1500 to 2500 words

End of Pre-K
Language Level:
Explains past events in detail to others and has a vocabulary of 4000 to 6000 words
**Link Preschool Skills to Kindergarten Skills**

Connect expectations to those that lay ahead...

**Early Reading**

<table>
<thead>
<tr>
<th>Preschool</th>
<th>Primary Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>• oral language</td>
<td>• reading vocabulary</td>
</tr>
<tr>
<td>• background knowledge</td>
<td>• reading comprehension</td>
</tr>
<tr>
<td>• phonological processing</td>
<td>• decoding of words</td>
</tr>
<tr>
<td>• print knowledge</td>
<td>• fluency and spelling</td>
</tr>
</tbody>
</table>

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Connect early reading skills from preschool to kindergarten skills.
Efficient Development of Memories

Planning that takes advantage of recent brain research
“Time Windows”: child develops networks of associations with repeated learning experiences that are related in content.

How This Looks Across the Day

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>(8:00 AM)</td>
<td>(9:30 AM)</td>
<td>(10:00 AM)</td>
</tr>
<tr>
<td><strong>Circle Time</strong></td>
<td><strong>Read Aloud</strong></td>
<td><strong>Writing Center</strong></td>
</tr>
<tr>
<td>Students report on trip to construction site, discuss target vocabulary</td>
<td>Book on building a house with vocabulary discussion</td>
<td>Class made books of field trip to construction site</td>
</tr>
</tbody>
</table>
Efficient Development of Memories
Bringing the theme into the classroom

Block Center
Books about construction and objects that allow for “construction” play

Listening Center
Syllabication game
Look at construction pictures and tally number of syllables

Writing Center
Make a class book about things you build that start with the letter h
example: hospital, house, hotel

Individual Progress Monitoring and Re-teaching
Balance of Teaching Strategies

Intentional/explicit and Child Directed Instruction
Direct & Indirect Instruction

- Teaching alliteration – Beginning sounds of words

**Large group:**
Read Aloud “A My Name is Alice”

**Small group:**
Teacher and student use mirror to practice alliteration

- Teaching alliteration – Beginning sounds of words

**Direct & Indirect Instruction**

- Puppet play that focuses on beginning sounds
- Writing activity – class made book on beginning /p/ sound
- Transitions, songs and games like Willabee Wallabee Walice
Flexible groupings of children for learning

One on one
Small groups
Large Groups
A critically important goal in early childhood is to understand the individual progress and needs of children.
Why Do We Assess?

These skills are too important for teachers to ignore or only “guess” their progress.
Evaluating what it takes to support teachers to have high quality programs
Three Key Instructional Components

- Research Tested Curriculum
- Web-Based Professional Development with Classroom Mentors
- Technology-Driven Monitoring of Child Learning
What does the Teacher Professional Development Include?

- Language and Literacy Training (2 days)
- Web-Based Professional Development with facilitator (20 sessions per year for 2 years)
- Face-to-Face Progress Monitoring Training (1 day)
- Mentoring (ongoing)
Why does it work?

Content based on years of scientific research
- Read-alouds
- Phonological awareness
- Classroom management
- Writing
- Letter knowledge
- Building vocabulary
- Supporting children’s talk
- Using names and more

Pedagogy focused on understanding children’s zone of proximal development
- Modeling
- Supporting practice
- Promoting independent mastery

Training
- Face to face
- Online

Features commentary from early childhood experts Susan Landry, Kathy Roskos, Lesley Morrow, Dorothy Strickland, Prentice Starkey, Alice Klein and Chris Lonigan along with input from excellent practitioners.
Facilitated Online Professional Development

- Nine online courses
- Created using video clips of actual teachers and children engaged in social and literacy interactions.
- Designed to cause conversations about learning, especially, classroom management, responsive interactions with children, phonological awareness, print knowledge, vocabulary building, language enrichment, read alouds, and mathematics.
- Used to generate conversation between face-to-face class meetings using an email discussion format
Progress Monitoring

Displays **guided prompts and instructions** to help teachers learn and conduct the assessment, and incorporates **automatic scoring and timing** to ensure accurate administration and reliable results.

Provides **immediate feedback** on a child’s performance so teachers can quickly review individual progress at any time.

Allows teachers to create **evolving portfolios** that include observations of socio-emotional development, book and print awareness, and early writing skills, as well as **handwritten notes and digital pictures**.

Suggests **classroom activities** targeted for the whole class, groups of children with needs in a particular area, and individual children.

With the push of a button, uploads assessment results and observations recorded on the handheld to a secure Web site, where teachers can view and print rich **class, group, and individual reports**.

Helps guide the professional development of early childhood educators with **observational checklists**.

Also available in Spanish.
The Teacher’s Responsibilities for Progress Monitoring

- Administer at three scheduled assessment windows across the academic year: Beginning, Middle, and End
- Use reports generated from assessment data to:
  - Obtain a class summary of all assessments
  - Obtain individual student summaries of assessments
  - Group children for specific activities and interventions
  - Use recommended small group activities
Participants: Schools & Teachers

• OH, MD, FL, TX
• 158 Schools
  – Head Start
  – Child care
  – Public school PreK
• 265 Preschool teachers
4 Treatment (PD) groups vs. “business as usual” control group:

<table>
<thead>
<tr>
<th>Mentoring Condition</th>
<th>Feedback Condition</th>
<th>Limited</th>
<th>Detailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>PD Group 1</td>
<td></td>
<td>PD Group 2</td>
</tr>
<tr>
<td>No</td>
<td>PD Group 3</td>
<td></td>
<td>PD Group 4</td>
</tr>
</tbody>
</table>
Participants: Children

• 1,786 children assessed
• Children ranged from 3- to 5-years-old
• 50% boys
• 27% ESL
• 17% Caucasian, 34% African American, 42% Hispanic American, 2% Asian, 5% Other
Examples of Scales on Teacher Behavior Rating System

- Shared reading
- Lesson planning
- Oral language instruction
- Writing instruction
- Team teaching
- Letter knowledge instruction
- Phonological awareness instruction
- Use of assessment
- Classroom management
- Responsive Interactions
Intervention Effects on Change in Teachers’ Instructional Practices

Total Score

Control
Mentor_Palm: Effect = 1.11
Mentor_Pencil
Nomentor_Palm
Nomentor_Pencil

Total Teaching Quantity Ratings (3 pt. scale)
Intervention Effects on Change in Teachers’ Instructional Practices

Phonological Awareness

Proportion of post test scores > 2 (4 pt. scale)

- Control
- Mentor_Palm (Effect = 1.49)
- Mentor_Pencil
- Nmentor_Palm
- Nmentor_Pencil
Intervention Effects on Change in Teachers’ Instructional Practices

Written Expression

Proportion of post test scores > 1 (3 pt. scale)

Control
Mentor_Palm (Effect = .66)
Mentor_Pencil
Nomentor_Palm
Nomentor_Pencil
Intervention Effects on Change in Teachers’ Instructional Practices

Print and Letter Knowledge Quality Rating (4 pt. scale)

- Control
- Mentor_Palm: Effect = 1.38
- Mentor_Pencil
- Nomentor_Palm
- Nomentor_Pencil
Child Language Skills

Post-Test Scores (raw scores)

-1SD on Pretest  Pretest Mean  +1SD on Pretest
TEEM Communities Established by SB 76 ('03) & 23 ('05)

Goal: Improve school readiness and increase access to quality early childhood programs for Texas

Problem: Extremely high percentage of Texas children enter Kindergarten not ready to succeed
Learning from science.

TEEM In the Early Childhood Classroom
• It’s an indescribable feeling to see children who had low self-esteem become a confident individual.
• You can see children light up!
• When they have more language, they solve their problems better.
• Children with speech disabilities are speaking more to other children.
• Children will come in and tell us how they feel without being asked.
Response to Instruction (RTI) is a way to better meet the learning needs of children by working in small groups with more intense instruction. The goal of RTI is to optimally support children through assessing how they respond to instruction.
What Is Response to Instruction (RTI)?

- **Tier 1** – core curriculum (~80%)
  - Read-aloud

- **Tier 2** – supplemental small groups (~15%)
  - Explicit vocabulary and comprehension

- **Tier 3** – intensive, individualized interventions (~5%)
  - This is where our Project is going to focus.
Look Who’s Talking:
Key Components

- Daily reading with scripted teacher modeling, scaffolding, and feedback
- Activities that actively involve students and encourage children to practice using target vocabulary
- Explicit, systematic comprehension and vocabulary instruction
Lesson Plans

Whole Group Lesson Plans

• Read two (2) books each week.
• Introduce vocabulary by giving child friendly definition.
• Focus on the daily guiding question.
• Provide scaffolding to support comprehension of the story.

Small-Group Lesson Plans

• Re-read specific pages within the book that focus on targeted vocabulary words.
• Review the daily guiding question to improve listening comprehension and provide language use opportunities.
• Review daily targeted vocabulary.
• Support learning by engaging children in activities that teach specific vocabulary.
• Provide additional scaffolding to support comprehension.
What will the day look like?

• Dedicate one (1) of the three (3) whole group lessons to the *Look Who’s Talking Pilot Project*.
• Provide one (1) small-group lesson per day for 15-20 minutes with the pre-selected group of children during center time.
Materials: All Teachers

8 Ocean themed books:

– The Ocean Is...
– Harry by the Sea
– Somewhere in the Ocean
– Clumsy Crab
– The Pout-Pout Fish
– The Three Little Fish and the Big Bad Shark
– Is this a House for a Hermit Crab?
– Fidgety Fish

Images from: www.amazon.com
Target teachers

- Whole group and small-group lesson plans
- Vocabulary cards
- Picture activity cards as needed
- Miscellaneous materials/props as needed
- Teacher manual (contains lessons, training materials, etc.)
Student Assessment

• Weekly small-group vocabulary assessments on Mondays and Fridays
  – teachers complete
• CPALLS+ Assessment
  – Use TSR! BOY, MOY, and EOY testing window timeframe
Conclusion

• Intensive Professional Development improves instruction.
• Intensive Professional Development improves child outcomes.
• The most effective programs are those that are intensive, comprehensive, and well integrated.
• Effective Programs can be scaled in all types of low-income early childhood settings!
For More Information

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