Reconsidering Level 2 Interventions for Low Language Children in Head Start

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Teacher Enhanced Language and Literacy (Project TELL)

- **Design**
  - Randomized Control Trial (Goal 3, IES)
    - Randomization at center level, classrooms nested, children nested
    - 3 groups

- **Population**
  - 444 4 year old children enrolled in Head Start
    - 223 identified low language (PLS-3 total less than 75 at enrollment)
    - 221 identified typical language (PLS-3 total greater than 75)
    - 4 low kids/classroom; 4 typical/classroom - matched for age, gender,

- **Intervention**
  - Level 1 Opening the World of Learning/ Creative Curriculum
  - Level 2/3 Enhanced Milieu Teaching + OWL (low language children only)
Research Question

- Is OWL + EMT relatively more effective than OWL alone or the control (Creative Curriculum) for children who enter Head Start with low language scores?

- Creative Curriculum
- Creative Curriculum + OWL
- Creative Curriculum + OWL + EMT (low language)
Enhanced Milieu Teaching

- Environmental Arrangement
  - Increase opportunities to communicate
- Responsive Interaction*
  - Positive, meaningful contingent verbal responses by adult
- Language Modeling* and Expansions of Child Utterances*
- Milieu Teaching Procedures*
  - Least to most supportive prompts
  - Functional production with feedback and natural consequences

- *Specified at child’s target level based on MLU, vocabulary
- EMT episodes targeted use of vocabulary in sentences of specified length
Child language level in EMT based on PLS-3, teacher and coach observations

- Level 1 – basic vocabulary, 3-4 word sentences
- Level 2 - entry level vocabulary, 4-5 word sentences

- 72 children received EMT
- 75% were Level 2
EMT Teacher Training

• Year 1
  • 2 days workshop training (large, small group)
  • Weekly feedback from HS Education Specialists (3 months)

• Year 2
  • 4 days workshop training (large, small group)
  • Weekly coaching and feedback by research staff (6 months)
  • Approx 70% of teachers participated in both Yr 1 and Yr 2

• OWL training in addition
## Level 2 EMT as Planned

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TEACHER PRIMARY SKILL</th>
<th>TEACHER EMT SKILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small groups</td>
<td>Implement OWL lessons: Small group, Sounds Words and Letters (SWPL), Let’s Find Out About It (LFOAI)</td>
<td>Provide child turns Prompt at child’s level (least to most) Model language at child’s level Respond and Expand child language</td>
</tr>
<tr>
<td>Centers</td>
<td>Conversational interactions Model rich language and vocabulary</td>
<td>Same as above Follow child’s lead</td>
</tr>
<tr>
<td>Meals</td>
<td>Conversational interactions Model rich language and vocabulary</td>
<td>Same as above Follow child’s lead</td>
</tr>
</tbody>
</table>
Challenges in Level 2 EMT

- Teachers not yet fluent in new curriculum
- Teachers not skilled at adapting to individual children within group lessons
- Teachers not skilled at EMT
Adaptations to support teacher use of EMT

- Play materials provided for teachers
- Play kits were 6 theme bags with short book showing play themes and add ins to specify vocabulary.
  - Two levels of vocabulary for each week’s play kit
  - Each kit used 3-4 times across 24 weeks, with added vocabulary for each new use
- Child vocabulary probed in first and last session of each week
- Vocabulary related to curriculum, but did not match weekly units
# Level 3 as Implemented

<table>
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<th>TEACHER EMT SKILLS</th>
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</table>
| • Individual teacher-child sessions  
• 10-minutes, 3 x/week  
• During centers, nap or end day  
• Play kits provided | Play Conversational Interaction | Follow child lead  
Balance turns  
Respond to child  
Prompt at child’s level (least to most)  
Model language at child’s target level  
Expand child language  
----  
Administer vocabulary probe  
Read/share brief story about thematic play |
Challenges in Level 3 As Implemented

- Teachers not prepared to work with individual children
  - Time in schedule
  - Classroom supervision
- Teachers not confident about play interactions
- Teacher linguistic skills in conversations varied
  - Number of different words, specific vocabulary modeling varied
- Teacher fidelity of implementation for EMT varied
  - Good responsiveness
  - Good to fair language modeling, expansions at target level
  - Fair use of EMT prompt procedures (number, correctness)
Outcomes

- No differences between 3 groups of low language children on standardized language and literacy assessments
- On average, children with low language gained between .4 and 1.0 SD on all standardized measures
- EMT +OWL group of low language children showed better gains in NDW language sample measures
- Gains for low language children were similar to typical language children
- Variability in EMT child outcomes associated with teacher language (TNDW) and implementation of EMT (expansions MT episodes)
  - Within sessions
  - On PPVT
Right logic? Right Intervention?

- Prevention vs Response to Intervention
  - This was a prevention approach
- General language vs. curriculum specific vocabulary, concepts
  - This was a general language skill approach
  - Vocabulary, oral language
- Teacher skill affected implementation of intervention level
  - Knowledge of the curriculum
  - Fluency in implementing the curriculum (adaptation)
  - Instructional strategy skills (adaptation)
  - General language skills
  - Play skills
## RTI vs prevention

<table>
<thead>
<tr>
<th>Level 2</th>
<th>Child not responding to Level 1</th>
<th>Prevention based on language skills at entry</th>
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<tbody>
<tr>
<td></td>
<td>Specific content from curriculum</td>
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<tr>
<td></td>
<td>• More practice in regular classroom activities (more response opportunities, adapted teaching, pre-teaching, feedback)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Small group</td>
<td>Language focused: vocabulary, MLU</td>
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<tr>
<td>Level 3</td>
<td>Individualized instruction linked to the specific content of the curriculum</td>
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</tr>
<tr>
<td></td>
<td>• Small group</td>
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A better approach to Level 2/3 in preschool language and literacy

- Determine the specific skills taught in the curriculum
  - Curriculum Based Measures
  - Teach Multiple skills
    - Vocabulary
    - Concepts
    - Phonological Awareness
    - Literacy (pre literacy, narrative, comprehension, reasoning)

Level 2 goal: adaptations of the curriculum, specific teaching in targeted areas
Level 3 goals: instruction in basic skills, entry into the curriculum
Some preschool specific issues

- The preschool curriculum is more than language and literacy
- Children with low language may have challenges in other areas
  - Behavior and social skills
  - Other curriculum areas (e.g., math concepts)
  - Other domains of development
  - Classroom participation
Child response to intervention

- Early identification resulted in false positives (?)
- Children with low language varied widely in their response to the curriculum regardless of experimental condition
- Some child characteristics were associated with relatively poorer response: behavior, NV IQ
Teacher Fidelity is Associated with Child Outcomes

- In all three conditions, teacher language skill (e.g., defining vocabulary in context) was associated with child outcomes.

- In EMT, teacher vocabulary use and teacher EMT specific skills were associated with child outcomes.

- Teacher implementation of primary and secondary intervention requires specific skills.
  - Can teachers adequately teach primary curriculum?
  - Do teachers have skills for Level 2 or Level 3 intervention?
  - In addition to CBM Level 2/3 progress monitoring in place to provide teachers with feedback, fidelity feedback to teachers may be necessary.