Acknowledgements...

- Christie Colunga, LAEL Project Director, PVCC Faculty
- Barbara Mezzio, LAEL Project Co-Director, CAC Faculty
- Dawn Craft, LAEL Project Manager

- Data Collectors: Kathy Evans, Leslie Jackson, Linda Williams-Tuenge, Amy Hust

- Indigo Evaluation Team: Dr. Patricia Goubeaux, Leslie Jackson, Sue Prossi, and Gisela Jimenez
Raising Arizona: Project Purpose

The goal of the Raising Arizona project is to update and systemize Arizona’s approach to language acquisition and early literacy by establishing foundational, standard college coursework.

The project is a three-tiered approach designed to create a pipeline through which promising national language acquisition and emergent literacy theory and research is translated into standardized instructional content and strategies, and then transmitted to enrollees in early child education classes, ultimately improving outcomes for Arizona’s children and families.
Raising Arizona: Project Approach

The project launched in 2010 with leaders in the field of language acquisition and emergent literacy facilitating a summit for Arizona’s early childhood education university and community college faculty. This event also helped to identify community-based trainers and coaches. Participating summit faculty reviewed existing college programs and courses to ensure adequate and appropriate language acquisition and emergent literacy concepts were included.

New language acquisition and emergent literacy courses were created along with a guide with suggested teaching content and strategies. A newly revised/designated one semester 3-hour language acquisition and emergent literacy course was then piloted with 77 early education teachers at five (5) collaborating partner sites.
Raising Arizona: Project Evaluation

A research study was conducted to determine if the enrolled students demonstrated enhanced language and literacy practices with children after completing the Raising Arizona: LAEL Professional Development pilot program. Additional research questions explored was whether there were any associations between participants’ background characteristics and increased practices with children.

Project participant sites with high levels of competency will be recognized and used as demonstration centers and sites for future courses and community trainings.
Raising Arizona: Evaluation Design Timeline

- Early education teachers recruited for project.
- Study explained and consent forms signed.
- Teachers filled out Background Survey.
- Data collectors observed teachers for a baseline score of language and literacy quality.
- Teachers completed the 3-credit course with their site cohort.
- Teachers completed the Feedback Survey during last class (their instructor was not present).
- Data collectors observed teachers for a post-score of language and literacy quality.
Raising Arizona: Study Measurement Tools

- **Background Survey**
  - Basic demographic characteristics
  - Educational and teaching experience
  - Classroom characteristics
  - Previous exposure to professional development initiatives

- **Observation assessments**
  - Early Language & Literacy Classroom Observation (ELLCO)
  - Infant-Toddler Environmental Rating Scale – Revised (ITERS-R) (selected 8 items that conceptually mapped onto ELLCO for infant and toddler classrooms)

- **Feedback Survey**
  - Participants rated their experiences in the course
  - Open-ended feedback about instructor, course format, readings, etc.
  - Suggestions for improvement
Raising Arizona: Research Questions

1. What is the description of participants’ background: Including basic demographic characteristics; features of their classrooms; and their previous exposure to professional development initiatives?

2. Are participants’ language and literacy practices with children enhanced after going through the Raising Arizona: LAEL Professional Development Program?

3. Are there any associations between participants’ background characteristics and increased practices with children?

4. How do participants rate their experiences in the Raising Arizona: LAEL Program?
Research Question #1:

What is the description of participants’ background?

~ Including basic demographic characteristics; features of their classrooms; and their previous exposure to professional development initiatives?
RQ1 Findings: Participant Characteristics

(77 total participants in study)
RQ1 Findings: Demographic Characteristics

**Teacher Ethnicity**
- White: 43%
- Latino: 33%
- Asian: 6%
- African American: 14%
- Native American: 4%

**Teacher Gender**
- Female: 95%
- Male: 5%

**Average Age:** 38.51 years old
RQ1 Findings: Education level of participants

**Education level**
- High School/GED: 54%
- CDA: 16%
- AA: 10%
- BA/BS: 19%
- MA/MS: 3%
**RQ1 Findings: Classroom Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years in current classroom</td>
<td>.00 years</td>
<td>27 years</td>
<td>2.52 years</td>
</tr>
<tr>
<td>Number of children in classroom</td>
<td>2 children</td>
<td>30 children</td>
<td>13.83 children</td>
</tr>
<tr>
<td>Percentage of Dual Language Learners</td>
<td>0% DLLs</td>
<td>100% DLLs</td>
<td>25.42% DLLs</td>
</tr>
</tbody>
</table>
RQ1 Findings: Classroom Characteristics

Chart Title

<table>
<thead>
<tr>
<th>Infant / Toddler</th>
<th>Preschool</th>
</tr>
</thead>
<tbody>
<tr>
<td>41%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Classroom Type by Age

89.8% of participants reported serving low-income families in their classrooms.
RQ1 Findings: Classroom Characteristics

Ethnic Make-Up of Class

- Mostly White: 21%
- Mostly Latino: 36%
- Mostly Non-White: 21%
- Wide Diversity: 22%

57.9% of classrooms have children who speak a language other than English.
RQ1 Findings: Professional Development Experience

74.6% of participants reported past or current work with a child care coach or consultant.

Areas of focus with coach or consultant

- Environment: 70%
- More materials: 61%
- Literacy: 39%
- Social emotional: 42%
- Challenging behaviors: 56%
- Staff-staff relationships: 30%
- Family engagement: 34%
RQ1 Findings: Professional Development Experience

Participants in Current Tuition Programs

- TEACH: 26%
- REWARDS$: 34%
- PCPP Pathways: 58%

(Some students reported participating in more than 1 tuition program; therefore, percentages do not add up to 100%.)
Research Question #2:

Are participants’ language and literacy practices with children enhanced after going through the “Raising Arizona: LAEL Professional Development Program?”
RQ2 Findings: ELLCO Outcomes

<table>
<thead>
<tr>
<th>ELLCO Sub-Scales</th>
<th>Pre-Assessment</th>
<th>Post-Assessment</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Structure</td>
<td>16.29</td>
<td>17.43</td>
<td>(p = .002^{**})</td>
</tr>
<tr>
<td>Curriculum</td>
<td>10.33</td>
<td>11.99</td>
<td>(p = .000^{***})</td>
</tr>
<tr>
<td>Language Environment</td>
<td>12.79</td>
<td>15.86</td>
<td>(p = .000^{***})</td>
</tr>
<tr>
<td>Books and Book Reading</td>
<td>18.07</td>
<td>20.49</td>
<td>(p = .000^{***})</td>
</tr>
<tr>
<td>Print and Early Writing</td>
<td>9.20</td>
<td>10.91</td>
<td>(p = .001^{***})</td>
</tr>
</tbody>
</table>

(Statistically significant changes in scores if \(p\) score is less than .05)
RQ2 Findings: ELLCO Outcomes

- Participants’ post-ELLCO scores on all subscales showed significant improvement.

- Participants who started the project with lower ELLCO scores were much more likely to make greater changes in their language and literacy practices with children as demonstrated by post-ELLCO scores.
RQ2 Findings: ITERS-R Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Pre-Assessment</th>
<th>Post-Assessment</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITERS-R mean</td>
<td>6.44</td>
<td>6.66</td>
<td>p = .05*</td>
</tr>
<tr>
<td>ITERS-R total</td>
<td>49.88</td>
<td>53.25</td>
<td>p = .007**</td>
</tr>
</tbody>
</table>

(Statistically significant changes in scores if p score is less than .05)

ITERS-R items were selected based on conceptual match with ELLCO constructs:
- Item 12: Helping children understand language
- Item 13: Helping children use language
- Item 14: Using books
- Item 20: Dramatic play
- Item 25: Supervision of play and learning
- Item 26: Peer interaction
- Item 27: Staff-child interaction
- Item 29: Schedule
Research Question #3:

Are there any associations between participants’ background characteristics and increased practices with children?
RQ3 Findings: Associations with outcomes

- Contrary to other research findings, we found no statistically significant associations among participants’ background characteristics and their outcomes in this project.

- This finding suggests that the “Raising Arizona: LAEL Professional Development Project” was effective regardless of participants’ demographic characteristics; classroom characteristics, or previous experience with professional development.
Research Question #4:

How do participants rate their experiences in the “Raising Arizona: LAEL Professional Development Program?”
## RQ4 Findings:
How well were course objectives met?

<table>
<thead>
<tr>
<th>Course Objectives</th>
<th>Below expectations</th>
<th>Minimally met</th>
<th>Adequately met</th>
<th>Exceeded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Define/describe continuum of language/reading/writing</td>
<td>2%</td>
<td>8%</td>
<td>25%</td>
<td>65%</td>
</tr>
<tr>
<td>2. Assess children's language development and literacy learning</td>
<td>2%</td>
<td>8%</td>
<td>35%</td>
<td>55%</td>
</tr>
<tr>
<td>3. Evaluate teacher's role in promoting language/literacy</td>
<td>0%</td>
<td>5%</td>
<td>27%</td>
<td>68%</td>
</tr>
<tr>
<td>4. Plan/create environments and curriculum to support language and literacy development</td>
<td>0%</td>
<td>2%</td>
<td>36%</td>
<td>62%</td>
</tr>
<tr>
<td>5. Develop ways of involving families in supporting language and literacy in young children</td>
<td>2%</td>
<td>3%</td>
<td>38%</td>
<td>59%</td>
</tr>
<tr>
<td>6. Analyze and select appropriate literature for diverse learners and respond to individual, cultural, and linguistic variations among children</td>
<td>0%</td>
<td>5%</td>
<td>32%</td>
<td>63%</td>
</tr>
</tbody>
</table>
## RQ4 Findings: Support from colleagues

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Director was able to provide resources as needed.</td>
<td>4%</td>
<td>9%</td>
<td>41%</td>
<td>46%</td>
</tr>
<tr>
<td>My Director was able to find coverage for my class.</td>
<td>7%</td>
<td>13%</td>
<td>39%</td>
<td>41%</td>
</tr>
<tr>
<td>My Director was supportive as I tried to make changes in class.</td>
<td>3%</td>
<td>7%</td>
<td>41%</td>
<td>49%</td>
</tr>
<tr>
<td>My Co-Teacher was supportive as I tried to make changes in class.</td>
<td>0%</td>
<td>4%</td>
<td>40%</td>
<td>56%</td>
</tr>
</tbody>
</table>
RQ4 Findings:
Top picks for class topics

Participants were asked to rate their top 3 class topics…

<table>
<thead>
<tr>
<th>Top picks for class topics</th>
<th>Percentage of votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play and Playing with Language Relating to Literacy</td>
<td>57%</td>
</tr>
<tr>
<td>Brain and Language Development Research</td>
<td>45%</td>
</tr>
<tr>
<td>Book Selection and What to Consider</td>
<td>42%</td>
</tr>
<tr>
<td>The Different Ways to Read a Book</td>
<td>39%</td>
</tr>
<tr>
<td>DAP and Literacy Development</td>
<td>28%</td>
</tr>
</tbody>
</table>

(Percentages do not add up to 100% as responses were not mutually exclusive)
RQ4 Findings: Open-ended feedback

“How responsive was your instructor’s feedback and assistance?”

Most salient themes:
- Immediate and timely
- Informative and knowledgeable
- Responsive

“I received immediate support and suggestions.”

“The instructor answered the questions after each class and we exchanged planning ideas each day.”

“She was understanding of our work load of teaching and taking class. She accommodated our schedules.”
RQ4 Findings:
Open-ended feedback

“What were the top topics you discussed with your instructor outside of class?”

Most salient themes:

- General literacy issues
- Specific books
- Ideas for classroom environment
- Tips for classroom management
- Questions about and clarifying our homework assignments
- Asking for more feedback on homework assignments
RQ4 Findings: Open-ended feedback

“Please provide feedback about your course assignments.”

Most salient themes:

- The level of difficulty was appropriate.
- The assignments were easy but time consuming.
- The assignments were applicable to my daily lesson planning.
- The use of Blackboard technology made it easier to follow assignments, but hard to find time to log-on every other day.
- The assignments should have been adjusted based on level of education of teachers – wanted more challenging assignments.
RQ4 Findings: Open-ended feedback

“Please provide feedback about the course readings.”

Most salient themes:
- Easy and informative
- Very useful – especially the DAP book
- Excessive and/or time consuming

“Reading was appropriate, easy to understand and helpful.”

“Assigned readings helped me because I used the ideas in my classroom.”

“The readings provided me with much-needed information.”
RQ4 Findings: Open-ended feedback

“What aspects of this course would you change?”

Most salient themes:

- No changes recommended
- Ability to tailor level of difficulty to students in the class
- Course format: more time in class; more hands-on activities

“More interaction in class.”

“Time was too crunched for all of the valuable knowledge needed to learn literacy and apply it.”

“More research assignments, so students can work at their individual level and more experienced students can go further.”
RQ4 Findings: Open-ended feedback

“Have you used and implemented insights gained from the course?”

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most definitely!</td>
<td>89%</td>
</tr>
<tr>
<td>Some</td>
<td>7%</td>
</tr>
<tr>
<td>Not yet</td>
<td>4%</td>
</tr>
</tbody>
</table>

“I am reviewing books more for culture, bias, language. I am using different techniques to enrich children's language/reading experiences.”

“I understand now maybe why some children do what they do. I have more understanding about children’s behaviors.”

“I've been spending more time reading with smaller groups of children.”
RQ4 Findings: Open-ended feedback

“What are some other topics you would have liked to see covered in this course?”

- How to build children’s vocabulary
- Basic child development information (milestones)
- More on family and child diversity issues
- More on parent involvement
- Classroom measures of literacy and language
- More details about Developmentally Appropriate Practice
Summary of Findings

- Participants represented a diverse group of early childhood educators.

- Classrooms were very diverse with English Language Learners present in almost every classroom.

- Participants made statistically significant improvements in their practices with children as a result of participating in “Raising Arizona.”

- Improvements were made regardless of participants’ background – suggesting that the course was effective for a wide diversity of learners.
Participants rated their experience with this project as very positive.

Most participants did not feel any changes were needed for the course.

Most students have already begun implementing knowledge gained from the course. This was demonstrated by changes in ELLCO and ITERS-R scores as well as by their feedback on the survey.
For more information about this study

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