Improving Teacher Preparation for Early Literacy Instruction

Kimberly L. Anderson  
Donna M. Scanlon  
Virginia Goatley  
Thea Yurkewecz  
Beth A. Wilson  
Anita C. DeSarbo

Acknowledgements

- Colleagues  
  - Frank Vellutino  
  - Joan Sweeney  
  - Lynn Gelzheiser
- Teachers and children in the ISA intervention studies
- Teacher educators and their students in the teacher education studies
- Funding Agencies  
  - FIPSE  
  - U.S. Department of Education  
  - National Institute of Child Health and Human Development

Early Literacy Teacher Education Project (ELTEP)

- 3-yr development grant - Fund for the Improvement of Postsecondary Education (FIPSE)
- Support teacher educators (TEs) in preparing and delivering literacy coursework in teacher preparation programs  
  - Contingent instructors  
  - Early career faculty  
  - Doctoral students
- Content derived from the Interactive Strategies Approach (ISA)  
  - Summarized in Early Intervention for Reading Difficulties: The Interactive Strategies Approach (Scanlon, Anderson & Sweeney, 2010).

Teachers (and Teaching) Matter

- Teacher quality is the single most important in-school influence on student achievement.
- Sailors and colleagues (2005) declared that the importance of a highly qualified teacher for student learning was “undeniably the most important factor in political and research circles.” (Sailors, Keehr, Martinez, & Harmon, 2005)

Teachers (and Teaching) Matter

- The importance of highly qualified teachers has been highlighted by:  
  - The mandate (NCLB) for a high quality teacher in every classroom by 2007  
  - New models of rigorous teacher evaluation systems  
  - Adoption of the Common Core State Standards

(Co-Common Core State Standards Initiative, 2010; DeMonte, 2013)
Teachers (and Teaching) Matter

• A substantial knowledge base exists for both the pedagogical and content knowledge that teachers of reading need to possess. (Darling-Hammond, 2006; National Reading Panel, 2000; Snow, Burns & Griffin, 1998; Snow, Griffin & Burns, 2005)

However -

• Evidence to suggest that the knowledge base of many K-3 teachers may not yet be aligned with this converging body of research. (Binks-Cantrell, Washburn, Joshi, & Hougen, 2012; Cunningham, Perry, Stanovich, & Stanovich, 2004; Joshi, Binks, Hougen, Dahlgren, Dean, & Smith, 2009; Salinger, et al., 2010)

Teachers (and Teaching) Matter

• Supporting preservice teacher education programs that prepare teachers of beginning literacy learners is important because:
  o Children who do not read proficiently by third grade are much more likely to not graduate from high school (Hernandez, 2011)

• Improving early literacy instruction provided by novice teachers is particularly important because:
  o There is an over-representation of beginning teachers in schools characterized by high poverty and low performance. (Feng, 2010; Kalogrides, Leeb, & Batalo, 2012)

Framing our Current Work

• Increasing demands for teacher expertise and accountability

• Concerns with the adequacies of some teacher preparation programs (Al Otaiba, Lake, Greulich, Folsom, & Guidry, 2012; Binks-Cantrell, Washburn, Joshi, & Hougen, 2012; Salinger et al., 2010)

• Emerging evidence for the positive impact of exemplary teacher preparation (Hoffman et al., 2005; IRA, 2003; Maloch et al., 2003)

• Dramatic growth in the use of contingent faculty in higher education (American Federation of Teachers, 2009; Ehrenberg & Zhang, 2004; Jaeger & Eagan, 2011; Umbach, 2007)

Framing our Current Work

• Preservice Project - funded by a development grant from IES
  o Focused on early literacy content in teacher preparation
  o Goal was to develop instructional resources that would support contingent faculty, graduate assistants, and early career teacher educators

• Early Literacy Teacher Education Project (ELTEP)
  o Focused on evaluating the utility of the preservice materials, with a goal of making them widely accessible

  • Content of both based on the ISA

Evolution and Content of the ISA

Professional Development Resources

Kimberly L. Anderson
Child Research and Study Center, University at Albany

What is the Interactive Strategies Approach (ISA)?

• An approach, not a program
• Focuses on developing teacher expertise
• A comprehensive, responsive approach to early literacy instruction and intervention.
• Emphasizes the development of strategic, self-regulated literacy learners
The instructional goals can be addressed in the context of various language arts components:

- Read aloud
- Shared reading
- Independent and buddy reading
- Writing and composition
- Oral language
- Foundational skills
- Supported small group reading

Instructional Goals of the ISA

- **Motivation to Read and Write**
- **Alphabets**
  - Purposes and Conventions of Print
  - Phonological/Phonemic Awareness
  - Letter Names
  - Letter Sounds
  - The Alphabetic Principle and the Alphabetic Code
  - Larger Orthographic Units and Multisyllabic Words
- **Word Learning (Word Identification)**
  - Strategic Approach to Word Learning
  - High Frequency Sight Vocabulary
- **Meaning Construction**
  - Vocabulary and Oral Language skills
  - Comprehension and General Knowledge

Brief History of the Approach

Three longitudinal studies:

- **One-to-one intervention for first grade students**
  - (Vellutino & Scanlon, 2002; Scanlon, Vellutino, Small, Fanuele, & Sweeney, 2005; Vellutino et al., 1996)
- **Small-group intervention in kindergarten, followed by one-to-one in grade 1**
  - (Scanlon, Gelzheiser, Vellutino, Schatschneider & Sweeney, 2008; Scanlon, Vellutino, Small, Fanuele, & Sweeney, 2005)
- **Professional development for kindergarten and grade 1 classroom teachers**
  - (Scanlon et al., 2008; Scanlon, Anderson & Gelzheiser, 2010)

Professional Development for Classroom Teachers

- Organized around the instructional goals
- Teachers were able to reduce the number of children in their classrooms who experienced reading difficulties by nearly 50%
- Success of the study, and teachers’ enthusiasm, led to the “Preservice Project”

Pre-Service Project: Overview

- Funded by IES as a Development Study
- Transform the PD used with inservice teachers into a format suitable for use in preservice courses
- Focus on contingent and early career faculty
Pre-Service Project: Overview

• Experienced teacher educator collaborators (TECs) from across NYS collaborated on the project
  o 2 - 4 faculty members from 10 Institutions
• Iterative process of development and revision
• Utilized the materials while teaching
• Focus on pre-service coursework, language arts methods course

Development of the instructional materials:
• Comprehensive package
• TECs were positive about the utility of the materials and most planned to use beyond the project
• Agreement that the content was too much for the targeted course
• Important to consider both the complex nature of preservice literacy instruction and the contributions of post-graduate learning experiences. (Kruetter et al., 2013)

Impact of content exposure on changes in student knowledge:
• Knowledge survey (KOLI) developed for the project
• Students taught by TECs showed somewhat greater gains on KOLI during implementation than baseline
• Students taught by TECs had greater pre-post gains than students taught by Comparison Teacher Educators (CTE)
• Within treatment group, students exposed to more of the content showed greater gains than students exposed to less of the content

Data need to be interpreted with caution:
• Limited amount of baseline data
  o Poor response rate
  o Failure of a number of students to complete the survey within the timeframe provided
• Anomalies in the data during the third implementation semester
  o Unusually high gains for the baseline group taught by the CTEs
  o Nearly universal decline in difference scores for students taught by TECs

Early Literacy Teacher Education Project (ELTEP)

Three-year development grant from FIPSE
• Utilizes the instructional materials and the knowledge survey developed during the Preservice Project
• Methodology informed by TEC feedback and findings related to their preservice teachers’ knowledge

Institutions choose programs/courses in which materials will be utilized
• All meetings, instructional resources, and the student knowledge assessment are now web-based
• 40-hour webinar series precedes use of the materials in courses
• Multiple teacher educators from each institution
• Cooperating teachers and field supervisors rated students’ knowledge and practice
## ELTEP Participants – initial cohorts

- Institutions
  - 10 NYS teacher education programs from 8 institutions
  - Mix of public/private, urban/rural, undergraduate/graduate
  - 2 started later, finishing up this semester
- Teacher Educators
  - 50 indicated interest in participating
  - 44 signed consents
  - 31 completed the webinar series

## ELTEP Participants – final cohort

- Fourth cohort of 30 teacher educators recruited in the final year (28 completed)
- 12 institutions, 11 states
- Combination of adjunct instructors (7), doctoral students (11), early career teacher educators (9)
- Self-paced study using presentations compiled from the archived recordings from the initial three cohorts

## ELTEP Participants

- 1349 undergraduate and graduate students participated by taking the KOLI
  - 553 students had at least one course with an instructor who had participated in the webinar series
- In addition to the KOLI,
  - Students responded to a self-efficacy survey
  - Agreed to allow their field supervisors and/or cooperating teachers respond to a survey regarding the student’s knowledge and teaching skills

## ELTEP Materials and Procedures

- Interactive webinars using GoToTraining
  - Research related to the goal
  - Videos of exemplary teaching
  - Instructional activities
  - Formal and informal assessment tools
- For each instructional goal
  - Kinds of difficulties children might have
  - Why they have those difficulties
  - What teachers can do to alleviate them
**ELTEP Materials and Procedures**

- TEs were provided with full website access following completion of the webinar series
  - PowerPoint presentations
  - Videos of exemplary teaching
  - General notes on use of the materials
  - References for supplementary readings

**ELTEP Results**

- Teacher Educators’ Views on the Project Webinars and Resources (Virginia Goatley)
- Changes in Students’ Knowledge Related to Early Literacy Development and Instruction (Donna Scanlon)
- Changes in Teacher Candidates’ Responses to Open-Ended Video Reflection (Thea Yurkewecz and Beth Wilson)

**Teacher Educators’ Views on the Project Webinars and Resources**

Virginia Goatley, University at Albany

**Key Questions**

- In what ways were participants satisfied with the webinar series and resources?
- Did teacher educators report changes in their teaching practices as a result of PD?

**Key Cohort Participants**

- **Live or Archived Webinar** Cohorts (n=27): Summer 2011 – May 2013
- **Archived** Only Cohort (n = 25): Summer 2013
Key Cohort Evidence

• Survey at completion of each webinar (live or archived)
• Survey at completion of ALL webinars
• Interviews with each participant

Satisfaction Indicators

• Interactivity with colleagues (live webinars)
• Cutting-edge research-based literacy instruction
• High quality resources (video, PowerPoint, handout)

Recommendation

Would you recommend use of the ELTEP website/resources to a colleague?

Yes = 100%
No = 0

(N = 25 from Summer 2013 data)

Satisfaction Indicators

• Expand their knowledge of literacy instruction:
  o "Helped me stretch my learning and personal growth"
  o "Reaffirmed I was on the right page"
  o "I really appreciated having this new knowledge for my teaching"

• Engaging elements of webinars (discussion, polls, practice examples)
  o "I LOVED the interaction during the discussion segments"
  o "I appreciated the discussion about the complexity of the reading process"

Satisfaction Indicators

• New Information to support teaching efforts
  o "This lecture gave me more ideas on ways to present the strategy to them."
  o "I have a good understanding of where [I could] begin."

• Support to include new resources in teaching
  o "I have all the Powerpoints, handouts, and notes in a binder."
  o "I appreciated the discussion about the complexity of the reading process"

Changes in Teaching and Strategies

• Continuously adding new information to instruction
  o "I used the RTI assessment information extensively"
  o "I emphasize the importance of introducing reading as a privilege"

• Teach at a deeper level
  o "I want to be more explicit with the developmental sequence of this content, particularly more organized with the flow and order of the topic."

• Shift structure of presentation
  o "This webinar made me stop and think about my teaching program and what I need to change and what is effective."
Knowledge Enhancement

- Strong sense of preparedness in (Scale 1-9):
  - High Frequency Sight Words (M = 7.75)
  - Introduction to Alphabetic (M = 7.43)
  - Letter Sounds Association (M = 8.00)
  - Alphabetic Principle and Code (M = 8.00)

Utilizing Resources

- Utilizing video clips (63%), PowerPoints (49%), and Handouts (41%)
- Less use of readings (9%), noting issues of required materials for department, thus only select chapters or articles.

Reasons: Important Topics (Summer 2013)

- Insights: I love the strategy-based approach of this instructional method, and feel that these modules really provided me with some fresh insight into how I can get my students to become more strategic reading instructors.
- Course-Related: Each segment is highly useful depending upon the course being taught so it was difficult to choose.
- Inclusive: ...all of the topics involve critical information for teachers to understand and use.

Content/Information

- Concrete Examples: Coupling video with research provides pre-service teachers ways to see "research in action" and concrete experiences to reflect upon.
- New Information: I think that since the ISA was new to me and provided a strategic way to orient to literacy learning.
- Main Goal: I think one overall point that was made throughout the series was that we need to help young children become independent and strategic readers.

Summary

- Overall vision of how to teach early literacy (content and organization)
- How to use available resources to support and enhance instruction
- Sense of Knowledge Enhancement that goes along with PD opportunities

Changes in Students’ Knowledge Related to Early Literacy Instruction

Donna M. Scanlon, University at Albany
Original Research Questions

- How does teacher candidates’ knowledge related to early literacy development and instruction change during the course of their teacher education program?
- Do teacher educators make use of the ELTEP materials?
- Does participation in one or more courses taught by ELTEP participants influence teacher candidates’ knowledge related to early literacy development?
- Sense of efficacy for teaching literacy learners
- Beliefs about the role of instruction in literacy learning

Plan for Addressing the Questions

- Administer a measure of Knowledge of Literacy Instruction (KOLI) at the beginning and end of undergraduate and graduate teacher education programs (causal comparative pretest – posttest design)
- Track which students take courses from participating instructors
- Gather information from participating instructors about whether they use ELTEP resources in individual courses and, if so, to what extent
- Administer measures of self efficacy for and beliefs about teaching at the end of the teacher education programs.

Development of the KOLI

- Developed by Scanlon, Getheiser, Anderson, Goatley & Vellutino (2009) for the Pre-service project.
- Designed to measure components of the Complex Process model and the Goals of the ISA.
  - With the exception of Motivation
- Item generation- declarative, conditional & procedural item types related to each of the goals
- Expert – novice comparisons (for item selection and validation)
- Revision and retesting
- Test-retest and internal consistency reliability assessment

KOLI Composition

The 179 item online survey comprised of eight subscales:
- General knowledge related to early literacy teaching and learning
- Print Concepts
- Phonological Awareness
- Alphabets
- Strategic Word Identification
- High Frequency Word Identification
- Vocabulary and Language
- Comprehension and Knowledge

Video Coding Task added for the current project

KOLI Item Example

- General Knowledge/Multiple Choice:

  Mr. T. is planning for the four children in his second grade class whose reading is much lower than that of the rest of the class. Which of the following approaches should Mr. T. choose?

  1. Provide all of the reading instruction for these children in a whole class setting so that they do not feel left out.
  2. Group these children into instructional levels less than the rest of the class, their instruction should be provided by a remedial or resource teacher.
  3. Provide reading instruction for these children in groups with average and high ability readers who will be good role models.
  4. Plan a block of time each day to provide instruction for these children as a separate group.

KOLI Item Example

- Vocabulary: True-False

  The typical school-aged child will learn the meanings of about 75 or fewer new words in a year.

  1. True
  2. False
**KOLI Item Example**

- Phonological Awareness - “Matching”

<table>
<thead>
<tr>
<th>Item Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The largest unit of sound in a word.</td>
</tr>
<tr>
<td>2. The smallest unit of sound in a word.</td>
</tr>
<tr>
<td>3. A word or word part that contains a vowel.</td>
</tr>
<tr>
<td>4. Several words that have the same beginning sound.</td>
</tr>
<tr>
<td>5. Solute changes in the sound (pronunciation) of a particular letter caused by the letters that come before or after it.</td>
</tr>
<tr>
<td>6. The smallest set of meaning in a word.</td>
</tr>
<tr>
<td>7. One sound is not heard because of a neighboring sound.</td>
</tr>
</tbody>
</table>

**Sample items – Beliefs about the role of Instruction**

Rate the extent to which you agree/disagree with the following statements.

- I am confident that I can
- Provide effective literacy instruction to developing readers in grades K–2
- Teach children to use strategies to independently identify unfamiliar words while reading

**What didn’t work…**

- Far too few students took the KOLI at both the beginning and end of their programs

**What we resorted to…**

- Some participating teacher educators didn’t provide class lists
- Many participating teacher educators did not report on whether/how they incorporated ELTEP instructional resources into their courses
We also looked at...

Comparisons on the index of self efficacy

<table>
<thead>
<tr>
<th></th>
<th>UGRAD Course</th>
<th>UGRAD No Course</th>
<th>GRAD Course</th>
<th>GRAD No Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Self Rating</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

One Institution had sufficient numbers of graduate students at posttest to allow a comparison between treatment (course) and control (no course) groups.

Within Institution Posttest Only Comparison

<table>
<thead>
<tr>
<th></th>
<th>GRAD Course</th>
<th>GRAD No Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean KOI Score</td>
<td>120</td>
<td>80</td>
</tr>
</tbody>
</table>

We had another way to look at the data...

In responding to the online survey, students were shown a picture of the book that describes the ISA and were asked to indicate whether they were familiar with it and, if so, how much of it they had read.

Conclusion... Taking a course from an ELTEP participant didn’t seem to matter....

• Perhaps because
  - Teacher educators were not using the materials?
  - We focused especially on recruiting adjunct and early career teacher educators who may have lacked the time and experience needed to incorporate the resources into their courses?
  - The content covered/resources provided in the ELTEP is not helpful in promoting teacher candidates’ knowledge?

Posttest only Comparison by Book Exposure (All Grad Students with Posttests)

<table>
<thead>
<tr>
<th>ISA Book Familiarity</th>
<th>Mean Post</th>
<th>SD</th>
<th>None</th>
<th>&lt;25%</th>
<th>25-50%</th>
<th>50-75%</th>
<th>75-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>None (n=108)</td>
<td>123.97</td>
<td>15.49</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&lt;25% (n=28)</td>
<td>123.11</td>
<td>18.15</td>
<td>&lt;.05</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>25-50% (n=26)</td>
<td>134.19</td>
<td>15.46</td>
<td>.61</td>
<td>.66</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>50-75% (n=53)</td>
<td>133.32</td>
<td>14.46</td>
<td>.55</td>
<td>.61</td>
<td>.05</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>75-100% (n=27)</td>
<td>138.78</td>
<td>17.67</td>
<td>.88</td>
<td>.94</td>
<td>.07</td>
<td>.32</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: There were too few students at the undergraduate level who had read a substantial proportion of the book to warrant a similar analysis for.
The best we could do….

- Extreme group design - Comparisons between high (50% or more) and low (25% or less) exposure to the book.
- Comparisons for all grad students with Posttests
- Comparisons within an institution to control for a variety of factors that could influence outcomes
  - Selectivity
  - Program characteristics

Comparisons on the Self-Efficacy scale by book exposure – All Grads

Self Efficacy Index by Book Exposure

Comparisons on the role of instruction – All Grads with Posttests

Beliefs of Low vs High Exposure Grads about the Positive Potential of Instruction to Influence Student Outcomes

Effect Sizes for Comparisons between Extreme Groups (High vs. Low Book Exposure) on subscales of the KOLI

Graduate Students at One Institution

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehension &amp; Knowledge</td>
<td></td>
</tr>
<tr>
<td>Vocab &amp; Language</td>
<td></td>
</tr>
<tr>
<td>Hig Frequency Words</td>
<td></td>
</tr>
<tr>
<td>Strategic Word ID</td>
<td></td>
</tr>
<tr>
<td>Alphabatics</td>
<td></td>
</tr>
<tr>
<td>Phon Aware</td>
<td></td>
</tr>
<tr>
<td>Print Concepts</td>
<td></td>
</tr>
<tr>
<td>General</td>
<td></td>
</tr>
<tr>
<td>KOLI Total</td>
<td></td>
</tr>
</tbody>
</table>

KOLI Performance for Small Graduate Sample with Pre and Posttests - matched by Institution

<table>
<thead>
<tr>
<th>Book Exposure</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (n=15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>116.87</td>
<td>13.83</td>
</tr>
<tr>
<td>Posttest</td>
<td>124.93</td>
<td>14.00</td>
</tr>
<tr>
<td>Gain d</td>
<td>8.06</td>
<td>0.68</td>
</tr>
<tr>
<td>High (n=15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>124.53</td>
<td>17.61</td>
</tr>
<tr>
<td>Posttest</td>
<td>139.33</td>
<td>8.11</td>
</tr>
<tr>
<td>Gain d</td>
<td>14.80</td>
<td>1.15</td>
</tr>
</tbody>
</table>
**Conclusions**

- Taking a course taught by an ELTEP participant did not influence outcomes at either graduate or undergraduate levels.
- At post test, graduate students who reported reading greater proportions of the Early Intervention for Reading Difficulties book scored higher on the KOLI overall and on all subscales except the vocabulary and language subscale.
- There was some evidence that exposure to the book had an increased graduate students' sense of efficacy for literacy instruction and their belief in the power of instruction to improve literacy learning.

**BACKGROUND**

- Knowledge of Literacy Instruction (KOLI) assessment video task
- Need to analyze responses
- Sample of responses: Low exposure and high exposure to the Early Intervention for Reading Difficulties (Scanlon, Anderson, & Sweeney, 2010) text
- Examining change over time (matched sample)

**STRAtegic Word Solving**

- One focus of the Interactive Strategies Approach (ISA, Vellutino & Scanlon, 2002) is on explicit teaching of several word identification strategies.
  - Children learn to read and build sight vocabulary through effective word solving while reading.

**Strategic Word Solving**

- Goal: Helping children to
  - Develop word solving skills
  - Become independent word solvers
  - Build sight vocabulary through reading
  - Build a sense of competence for and confidence in reading
- Providing children with guidance and practice in using both code-based and meaning-based strategies in interactive and confirmatory ways

**Changes in Teacher Candidates’ Knowledge Based on an Extended Response to an Instructional Video**

Beth A. Wilson
Thea Yurkewecz,
University at Albany

Symposium presented at the Literacy Research Association annual conference, December 4, 2013, Dallas, TX.
METHODS

- Participants: Sample of graduate students in 2 Teacher Preparation Programs
- 2 (condition) x 2 (time) repeated measures design
- Conditions:
  - High exposure to the ISA book
  - Low Exposure to the ISA book
- Time:
  - Pretest
  - Posttest
- 15 graduate students in each condition

DESCRIPTION OF THE VIDEO TASK:

- Teacher candidates were asked to apply their knowledge of early literacy to describe an instructional video
- Teacher candidates were asked to view the video within the KOLI and respond to:
  - questions focused on the literacy instructional goals
  - teacher support of the children's literacy development, and student understandings.
- The task provided an opportunity to analyze changes in candidates' language and interpretations of instructional practices overtime (Note that participants could replay the video as needed and were not limited to the length of their responses).

KOLI VIDEO TASK

After participants viewed this video, they were asked to respond in a text box to the following questions:
(1) What are the literacy-related instructional goals in this lesson?
(2) What did the teacher do to support the children's literacy development?
(3) What did the students seem to know, understand, and/or learn during this lesson?
(4) Anything else you’d like to comment on?

SAMPLE OF A STRONG RESPONSE

The goals of the lesson were to identify words, using pictures clues and background knowledge. Another goal might be identifying word families (-ing ). There teacher covered up words in the book. The words covered were to be determined by the children.

The teacher read a part of the sentence and then allowed the students to call out what they thought the answer was. A few times the teacher gave the first letter and sound of the word (gr= grow ). The teacher also had the students identify the word family in the title (living).

The students knew about word families (-ing ) and were able to use strategies to determine the best fit in each sentence. The students used their background knowledge, the pictures, and context.

SAMPLE OF A LIMITED RESPONSE:

The literacy-related instructional goals are to teach about word families and pronunciation.

The teacher challenged their thinking to help support their literacy development.

The children knew how to use pictures as clues to help them figure out words.
• The teacher candidates’ written responses from the video task were analyzed using an open-coding method (Strauss & Corbin, 1998).
• This method allows data collected from the written responses to be identified by common themes, patterns, categories, and generalizations (Patton, 1990). This process was initially undertaken by a group of eight consisting of researchers, doctoral students, and the project manager.
• Through multiple rounds of open-coding, individual codes were developed to capture recurrent characteristics in the responses.

We continued to refine individual codes and to group them into more overarching codes which led to the development of rubrics for evaluating different themes that emerged in the responses including a focus on: TEACHING, WORD SOLVING, COMPREHENSION.

**RELIABILITY:**

• Researchers double scored rounds of responses to check reliability.
• Inter-rater reliability was calculated using percent of exact agreement as well as correlations.
• Low indices of reliability led to refinements in the codebook during this process.
• Reliability never reached a satisfactory level.
• Differences were resolved through discussion. Therefore, for the data used in current presentation, the decision was made to double score the entire data set and continue to resolve differences in this way.

**RATING VIDEO RESPONSES**

• Sixty responses were rated for the current project
  o 30 pretest responses (15 from each exposure condition)
  o 30 posttest responses (15 from each exposure condition)
• Responses were randomized prior to rating
• Raters were unaware of the exposure condition and time of test when they did their ratings

<table>
<thead>
<tr>
<th>Word Solving</th>
<th>Overall Word Solving</th>
<th>Overall Comprehension</th>
<th>Overall Focusing on Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0-Does not discuss word solving in a meaningful way</td>
<td>0-No focus on comprehension</td>
<td>0-No focus on teaching</td>
</tr>
<tr>
<td>1</td>
<td>1-At least one of each type of strategy</td>
<td>1-Brief mention of one aspect related to comprehension</td>
<td>1-Only a description of teaching</td>
</tr>
<tr>
<td>2</td>
<td>2-A couple of references to comprehension with some explanation</td>
<td>2-Description of teaching and some explanation</td>
<td>2-Description of teaching and fairly complete explanation</td>
</tr>
<tr>
<td>3</td>
<td>3-Explicitly explains the interactive/confirmatory use of strategies</td>
<td>3-Well-developed explanation of comprehension</td>
<td>3-Description of teaching and fairly complete explanation</td>
</tr>
</tbody>
</table>

For the Word Solving rubric, no statistically significant differences were found.

<table>
<thead>
<tr>
<th>Word Solving</th>
<th>Mean</th>
<th>SD</th>
<th>Effect Size (Cohen’s d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Exposure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>1.53</td>
<td>.99</td>
<td></td>
</tr>
<tr>
<td>Posttest</td>
<td>1.73</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>High Exposure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>1.73</td>
<td>1.16</td>
<td></td>
</tr>
<tr>
<td>Posttest</td>
<td>2.07</td>
<td>.59</td>
<td></td>
</tr>
</tbody>
</table>
Findings: The Effect of the Level of the Exposure to the Book on the Early Literacy Teaching Rubrics

For the Comprehension and Focus on Teaching rubrics, no statistically significant differences were found.

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Comprehension</th>
<th>Focus on Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>a Mean .67</td>
<td>.82</td>
</tr>
<tr>
<td></td>
<td>SD .14</td>
<td>.99</td>
</tr>
<tr>
<td>Pretest</td>
<td>.67</td>
<td>.82</td>
</tr>
<tr>
<td>Posttest</td>
<td>.67</td>
<td>1.33</td>
</tr>
<tr>
<td>High</td>
<td>.87</td>
<td>1.06</td>
</tr>
<tr>
<td></td>
<td>.67</td>
<td>1.67</td>
</tr>
<tr>
<td>Pretest</td>
<td>.53</td>
<td>.74</td>
</tr>
<tr>
<td>Posttest</td>
<td>.53</td>
<td>.74</td>
</tr>
</tbody>
</table>

Findings: Correlations of the Word Solving Rubric to the KOLI Total and Component Scores

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total KOLI</td>
<td>.45</td>
<td>.73**</td>
</tr>
<tr>
<td>General</td>
<td>.30</td>
<td>.54**</td>
</tr>
<tr>
<td>Print Concepts</td>
<td>.33</td>
<td>.47**</td>
</tr>
<tr>
<td>Phonological Awareness</td>
<td>.29</td>
<td>.54**</td>
</tr>
<tr>
<td>Alphabeticics</td>
<td>.36</td>
<td>.70**</td>
</tr>
<tr>
<td>Strategic Word Identification</td>
<td>.40</td>
<td>.60</td>
</tr>
<tr>
<td>High Frequency Word Identification</td>
<td>.27</td>
<td>.42</td>
</tr>
<tr>
<td>Vocabulary and Language</td>
<td>.24</td>
<td>.69**</td>
</tr>
<tr>
<td>Comprehension and Knowledge</td>
<td>.27</td>
<td>.41</td>
</tr>
<tr>
<td>Means</td>
<td>1.03</td>
<td>1.90</td>
</tr>
<tr>
<td>SD</td>
<td>1.07</td>
<td>.76</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

DISCUSSION AND LIMITATIONS

• Did not clearly find significant difference between the low and high exposure groups.

• The difference between the effect size for the gain in scores on the Word Solving Rubric offers some support that high exposure to the ISA book during a graduate program has practical significance.
  - This study was underpowered.
  - The majority of matched data came from a one institution.
  - Data is still being collected this semester, so we hope to have a fairly large sample of undergraduates for a similar analysis.

DISCUSSION AND LIMITATIONS

• Limitations in the Video Task:
  - The video was chosen because it highlighted Strategic Word Solving, an important component of the ISA.
    - May limit the ability to measure change in knowledge related to other aspects of early literacy instruction.
  - The responses for the three questions were put into one box on the survey. Complete sentences were not required.
    - Some responses did not clearly indicate what part answered which prompt.
    - Made coding difficult.

DISCUSSION AND LIMITATIONS

• Reliability in Scoring the Rubrics
  - We used discussion to resolve differences.
  - Based on the moderate to high correlations between the KOLI and the Rubrics at posttest our scoring method proved to be acceptably reliable.

DISCUSSION AND LIMITATIONS

• Examine responses from a qualitative lens
• Examine different codes (e.g., language, focus on student thinking)
• Revisit rubrics and the codebook to increase reliability and efficiency
• Focus on undergraduates (pre/post matched sample)
• Include a third coder for reliability
• Look for new ways to examine the wealth of description within these responses

MOVING FORWARD
Improving Teacher Preparation for Early Literacy Instruction

Wrapping Up

The project was conducted at a difficult time in teacher education.
Some of the ELTEP participants did not end up teaching courses for which the materials would be relevant.
Insufficient numbers of students responded at both pre and posttest.
We had no information on what actually happened in the courses that the students took.
Generally, participating teacher educators did not respond to questionnaires regarding use of the instructional resources.

Challenges and Limitations

Additional undergraduate data is being collected as we speak...
We are hopeful that that will shed additional light on the impact of the ELTEP materials.
Plan to survey the final cohort of teacher educators after they have had use of the resources for a year.
We are hopeful that that will provide us with useful feedback regarding the sustainability of the ELTEP products.

We plan to make the ELTEP resources more widely available because:
• There are quite positive about them.
• In-service teachers are quite positive about what they learn in the ISA professional development which has a lot of similarities to the ELTEP materials.
• There is a desperate need to improve the literacy learning of primary grade children—especially those living in poverty.
• We have fairly strong evidence indicating that teachers who implement the kind of comprehensive and responsive instruction advocated by the ISA can substantially reduce the number of children who experience early literacy learning difficulties.

Going Forward

One suggestion from the final cohort of teacher educators was that we make the instructional videos available for viewing by students outside of class.
We are open to suggestions for ways in which we might make the recorded presentations and other resources available to teacher educators who wish to use them in their teaching.

CONTACT INFORMATION:

Kim Anderson
kanderson@albany.edu

Virginia Goatley
vgoatley@albany.edu

Donna Scanlon
dscanlon@albany.edu

Beth Wilson
bawilson@albany.edu

Thea Yurkewecz
tayurkewecz@albany.edu