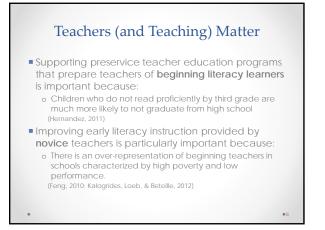


Teachers (and Teaching) Matter

- 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)



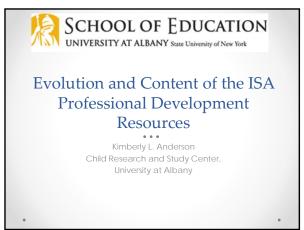
Framing our Current Work

- 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)



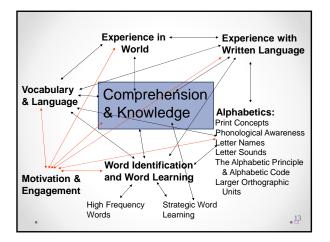
- Early Literacy Teacher Education Project (ELTEP)
 Focused on evaluating the utility of the preservice materials, with a goal of making them widely accessible
- Content of both based on the ISA

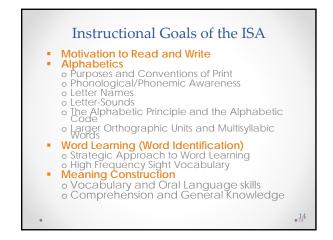


What is the Interactive Strategies Approach (ISA)?

- 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

010





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

•15



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"

•17



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

Pre-Service Project: Overview

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)

Pre-Service Project: Overview

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 be 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

 Poor response rate
 Failure of a number of students to complete the survey within the timeframe provided

 Anomalies in the data during the third implementation semester

 Unusually high gains for the baseline group taught by the CTEs
 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

•23

Early Literacy Teacher Education Project (ELTEP)

- 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
 - •24

ELTEP Participants - initial cohorts

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

ELTEP Participants – initial cohorts

- Teacher Educators were predominantly adjuncts (18), with 10 FT faculty and 3 lecturers
- Self-selected into one of three cohorts depending on which semester of webinars best fit their schedule

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

0.28

teaching skills



- o Videos of exemplary teaching
- o Instructional activities
- o Formal and informal assessment tools
- For each instructional goal

 Kinds of difficulties children might have
 Why they have those difficulties
 - o What teachers can do to alleviate them

•29

ELTEP Materials and ProceduresComplete series offered three consecutive series Each webinar recorded and made available on the ELTEP password protected website The had some combination of live and archived sessions Quality of the webinars evaluated Ongoing improvement Compilation of webinars for future use

ELTEP Materials and Procedures

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

ELTEP Materials and Procedures

Use and review of the web-based resources by intended "users"

- Viewed entire series of webinars
- Responded to feedback surveys about each topic and the series as a whole
- Provided with full access to the project website
- Will be surveyed again after a year of access to the ELTEP resources

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)



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 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)



Satisfaction Indicators

- Expand their knowledge of literacy instruction:
 "Helped me stretch my learning and personal growth"
 - "Helped me stretch my learning and personal growth"
 "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)
 - *I LOVED the interaction during the discussion segments*
 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"
 - "I emphasize the importance of introducing reading as a privilege"
- Teach at a deeper level
 - "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
 - *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):

o High Frequency Sight Words (M = 7.75)
o Introduction to Alphabetics (M = 7.43)
o Letter Sounds Association (M = 8.00)

o 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



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
 - o Sense of efficacy for teaching literacy learners
 - o 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, Gelzheiser, 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
- Alphabetics
- 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?

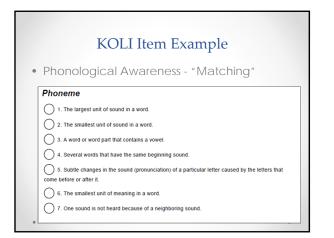
- 1. Provide all of the reading instruction for these children in a whole class context so that their self-esteem does not suffer.
- 2. Since these children have very different instructional needs than the rest of the class, their
- nstruction should be provided by a remedial or resource teacher.
- 3. Provide reading instruction for these children in groups with average and high ability readers who will be good models.
- 4. Plan a block of time each day to provide instruction for these children as a separate group

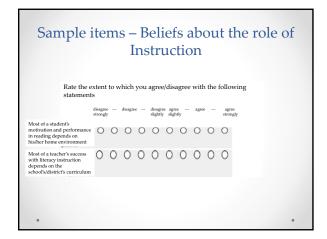
KOLI Item Example

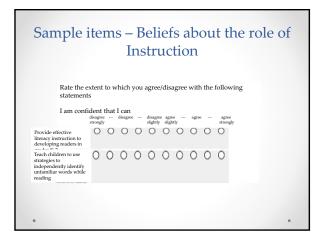
Vocabulary: True-False

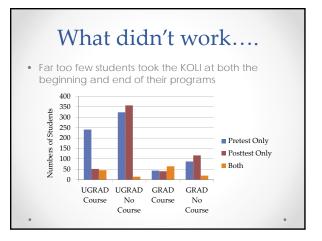
The typical school-aged child will learn the meanings of about 75 or fewer new words in a year.

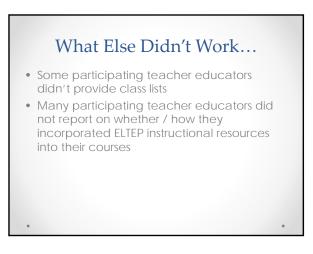
1. True

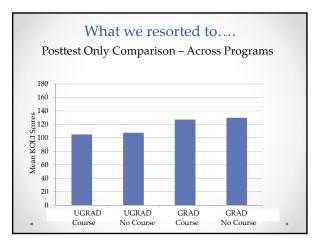


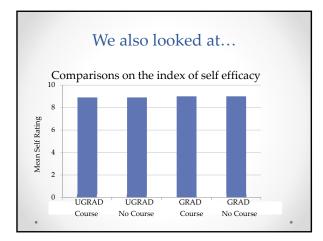


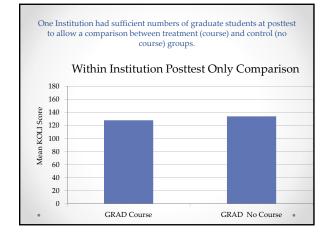














Conclusion...Taking a course from an ELTEP participant didn't seem to matter....

- 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?

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

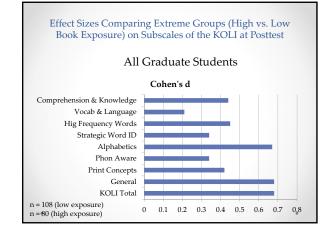
In responding to the online survey, students were shown a picture of the book that describes the ISA and were asked to indicate whether they were familiar with it and, if so, how much of it they had read.

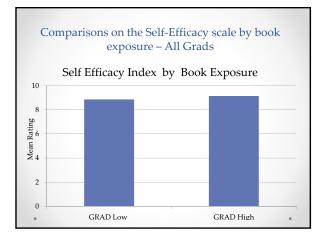
Posttest only Comparison by Book Exposure (All Grad Students with Posttests)

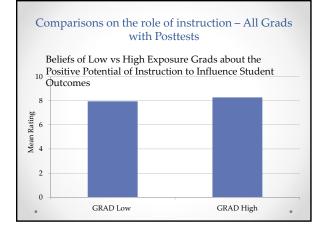
				ect sizes trasted b Famil	y ISA Bo	
ISA Book Familiarity	Mean Post	SD	None	<25%	25- 50%	50- 75%
None (n=108)	123.97	15.49	-			
<25% (n=28)	123.11	18.15	05	-		
25-50% (n=26)	134.19	15.46	.61	.66	-	
50-75% (n=53)	133.32	14.46	.55	.61	.05	-
75-100 % (n=27)	138.78	17.67	.88	.94	.27	.32
Note: There were too fer substantial proportion of						read a _e

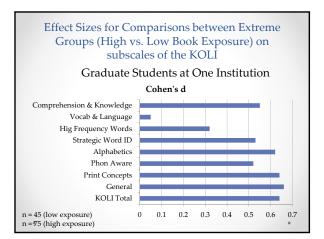
The best we could do....

- 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







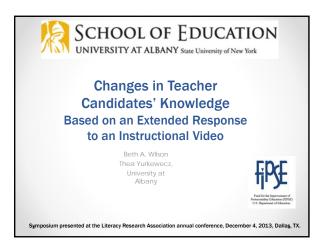


KOLI Performance for Small Graduate Sample
with Pre and Posttests - matched by Institution

Book Exposure		Mean	SD
Low (n = 15)	Pretest	116.87	13.83
	Posttest	124.93	14.00
	Gain d	8.06 0.58	
High (n = 15)	Pretest	124.53	17.61
	Posttest	139.33	8.11
	Gain d	14.80 1.15	

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.
- Theoretical framework Share's (1995) Self-Teaching Hypothesis -
 - 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
 - o Become independent word solvers
 - o Build sight vocabulary through reading
 - o 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

Strategic Word Solving

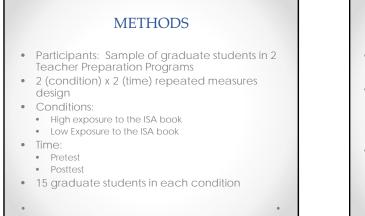
Code-Based Strategies:

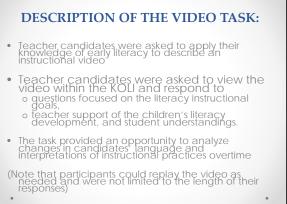
- •Think about the sounds in the word •Look for word families or other parts you know •Try different pronunciations for some of the letters especially the vowel(s)
- Break the word into smaller parts

Meaning-Based Strategies:

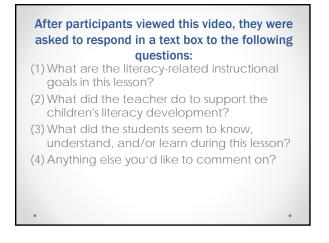
- •Check the pictures •Think of words that might make sense
- •Read past the puzzling word
- •Go back to the beginning of the sentence and start again

The video within the KOLI was selected because it addresses and captures the Word Solving component









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

DEVELOPMENT OF CODES:

- 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, categorizes, 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**

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

Ea	rly Literacy Teaching Rubric: Overall Word Solving
0	Does not mention both code-based or meaning-based approaches to word solving OR does not explicitly recognize word solving in a meaningful way
1	Indicated one meaning along with one code-based approach to word solving
2	Indicated both code- and meaning-based approaches with more than one of one type (e.g., 2 meanings + 1 code)
3	Explicit explanation of multiple strategies and the use of strategies interactively in <i>a confirmatory way</i>

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

Findings: The Effect of the Level of the Exposure to the Book on the Early Literacy Teaching Rubrics

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

n			
	Mean	SD	Effect Size (Cohen's d)
15			
	1.53	.99	
	1.73	.88	.21
15			
	1.73	1.16	
	2.07	.59	.39
		1.53 1.73 15 1.73	1.53 .99 1.73 .88 15 .1.73 1.73 1.16

0		Effect of the the Early Lite				
For the Com no statisticall						
		Compreh	ension	Focus on Teaching		
	n	Mean	SD	Mean	SD	
Low Exposure	15					
Pretest		.67	.82	1.40	.99	
Posttest		.67	.82	1.33	.98	
High Exposure	15					
Pretest		.87	1.06	1.67	.49	
Posttest		.53	.74	1.60	.74	

KOLI Total and Com	ponent Scor	es
Correlations of the Word Solving Ru	bric to the KOU	Total and
Component Scores at Pret		
Correlations Calculated Acros		
contentions calculated Acros		ring Rubric
	Pearson r	
	Pretest	Posttest
otal KOLI	.45*	.73**
General	.39*	.54**
Print Concepts	.33	.47**
Phonological Awareness	.28	.51**
Alphabetics	.36*	.70**
strategic Word Identification	.40*	.40*
ligh Frequency Word Identification	.27	.42*
/ocabulary and Language	.24	.69**
Comprehension and Knowledge	.27	.41*
/leans	1.63	1.90
D	1.07	.76

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.
 - o 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 analyses.

DISCUSSION AND LIMITATIONS

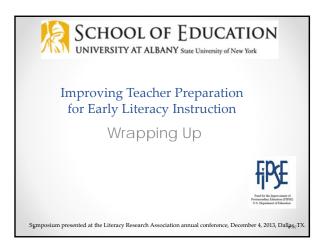
- Limitations in the Video Task:
 - The video was chosen because it highlighted Strategic Word Solving, an important component of the ISA.
 May limit the ability to measure change in knowledge related to other aspects of early titracy instruction.
 - The responses for the three questions were put into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

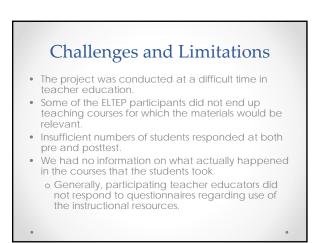
DISCUSSION AND LIMITATIONS

- 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.

MOVING FORWARD

- 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





Going Forward Additional undergraduate data is being collected as we We are hopeful that that will shed additional light on the impact of the ELTEP resources

- 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 LITP products

speak.

- We plan to make the ELTEP resources more widely available because

- TE's 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 poverly. 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.
 - ELTEP Video Library <u>www.ELTEP.org</u>
- 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.

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