Effects of Individualized Instructional Feedback on Early Caregiver Practices, Provider Quality, and Child Outcomes



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STUDY MOTIVATION



Early investments in children's lives matter

(Chetty et al., 2011; Deming, 2009; Heckman, Moon, Pinto, Savelyev, & Yavitz, 2010; Vandell, Belsky, Burchinal, Steinberg, & Vandergrift, 2010; Votruba-Drzal, Coley, Maldonado-Carreño, Li-Grining, & Chase-Lansdale, 2010)

 Advances in defining early care and education (ECE) quality

(Dickinson, 2011; Pianta et al., 2005; Sabol, Soliday Hong, Pianta, & Burchinal, 2013)

 Still low levels of classroom quality in many ECE programs

(Burchinal, Vandergrift, Pianta, & Mashburn, 2010)

ECE QUALITY IMPROVEMENT STRATEGIES

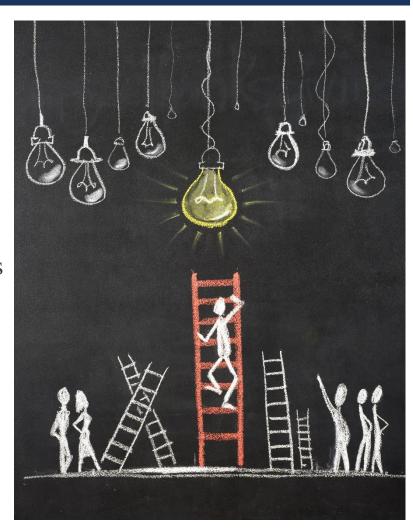
Early learning and program standards

Kindergarten Entry Assessments

Quality Rating and Improvement Systems

Professional development trainings

Coaching and mentoring



OHIO EARLY LANGUAGE AND LITERACY CLASSROOM OBSERVATION (ELLCO) PROJECT

Primary Purposes:

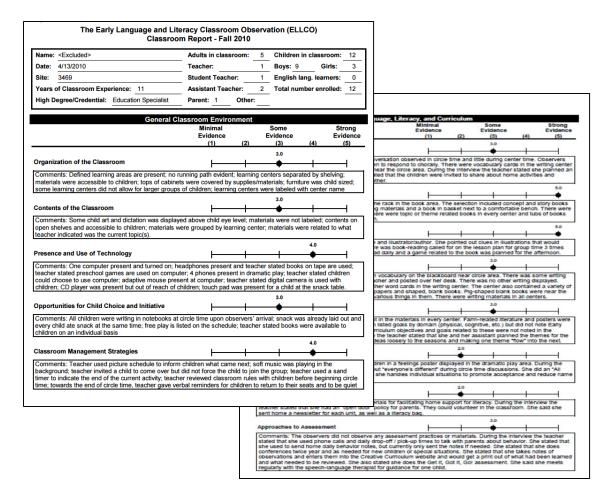
- Examine state-level preschool program capacity
- Identify preschool teacher professional development needs

Secondary Purposes:

- Feedback to classroom teachers
- Feedback to building administrators



ELLCO FEEDBACK INTERVENTION



ELLCO Teacher Report

Report guide

Early Language and Literacy Reflection Tool

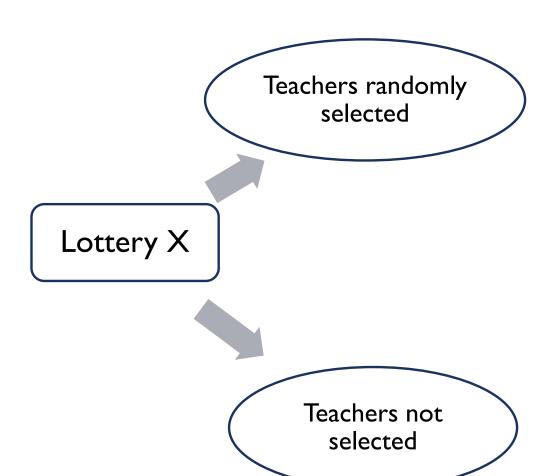
ELLCO Data Use Training

NUMBER OF TEACHERS (CLASSROOMS) TREATED FROM 2008-2012

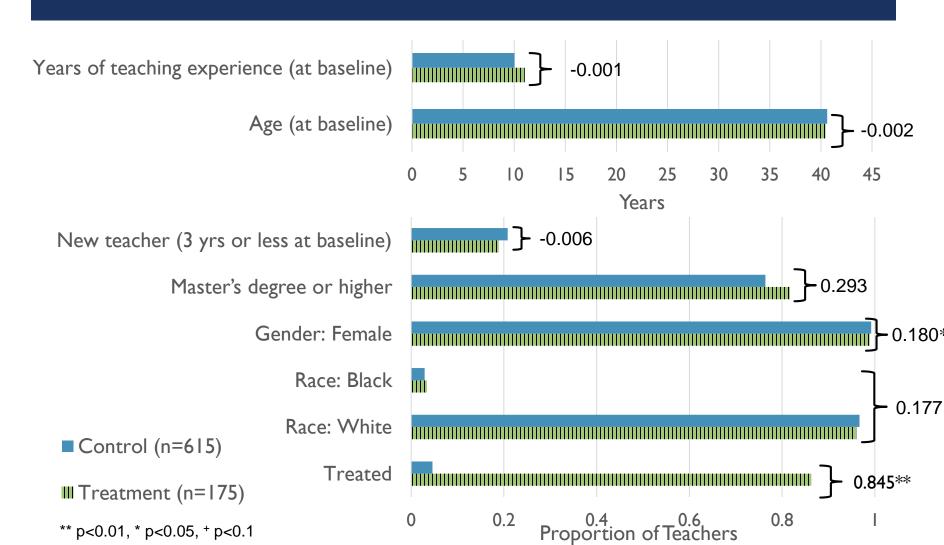
ECE Program Type	Number of Preschool Classrooms Observed		
Early Learning Initiative (ELI)	348		
Early Childhood Education (ECE)	121		
Preschool Special Education (PSE)	735		
TOTAL	1204		

Note. 248 of these classrooms also observed a second time.

NATURAL RANDOM ASSIGNMENT



COVARIATE BALANCE FOR ANALYTIC SAMPLE WITH POST-TREATMENT ELLCO OUTCOME DATA



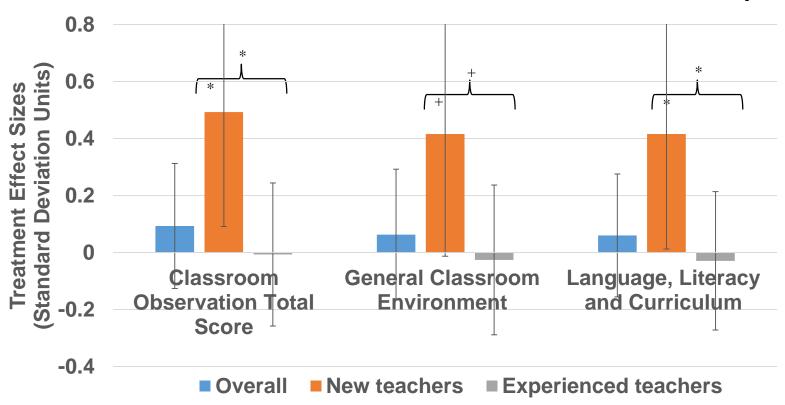
What is the impact on Classroom Quality?

Research Question 1



POSITIVE EFFECTS ON CLASSROOM QUALITY FOR NEW TEACHERS

ELLCO Outcomes on ITT Treatment Status: Teacher Experience



^{**} p<0.01, * p<0.05, + p<0.1

790 teachers

242 Lottery X Post-treatment measurement round fixed effects

What is the impact on Provider Quality?

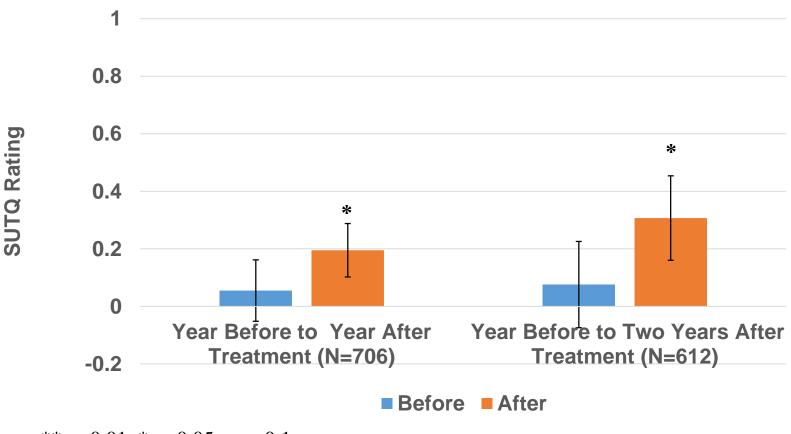
Research Question 2



POSITIVE EFFECTS ON PROVIDER QUALITY

OLS Regressions of SUTQ Rating on Indicator of Any Teachers Treated in Provider to

Date with Sample Consistent across Years



^{**} p<0.01, * p<0.05, + p<0.1

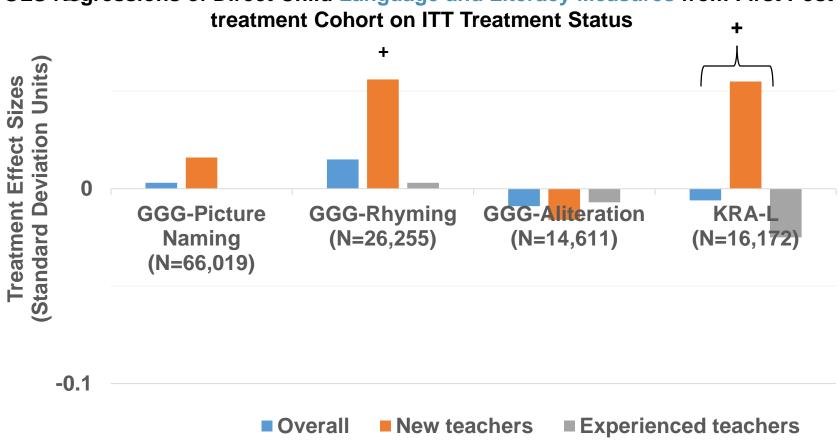
What is the impact on Children?

Research Question 3



POSITIVE EFFECTS ON CHILDREN FROM CLASSROOMS WITH NEW TEACHERS WHO RECEIVED FEEDBACK

OLS Regressions of Direct Child Language and Literacy Measures from First Post-



^{**} p<0.01, * p<0.05, + p<0.1

IMPLICATIONS

Light-touch individualized feedback can change instructional practice quality for some ECE teachers

Differential treatment effects motivate additional investigations



MY SINCERE APPRECIATION TO:

DIANE WHITMORE SCHANZENBACH, NORTHWESTERN UNIVERSITY

JONATHAN GURYAN, NORTHWESTERN UNIVERSITY

TERRI SABOL, NORTHWESTERN UNIVERSITY

TRACEY CHESTNUT, OHIO DEPARTMENT OF JOB AND FAMILY SERVICES

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Appendix Slides



LIMITATIONS

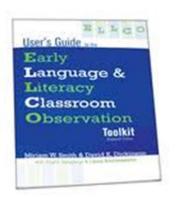
Generalizability

- Intervention implemented in one state and at one point in time
- Sample teacher characteristics not representative of all ECE staff

Limitations of available outcome measures

ELLCO ELEMENTS – GENERAL CLASSROOM ENVIRONMENT

- 1. Organization of the Classroom
- 2. Contents of the Classroom
- 3. Presence and Use of Technology
- Opportunities for Child Choice & Initiative
- Classroom Management and Strategies
- 6. Classroom Climate





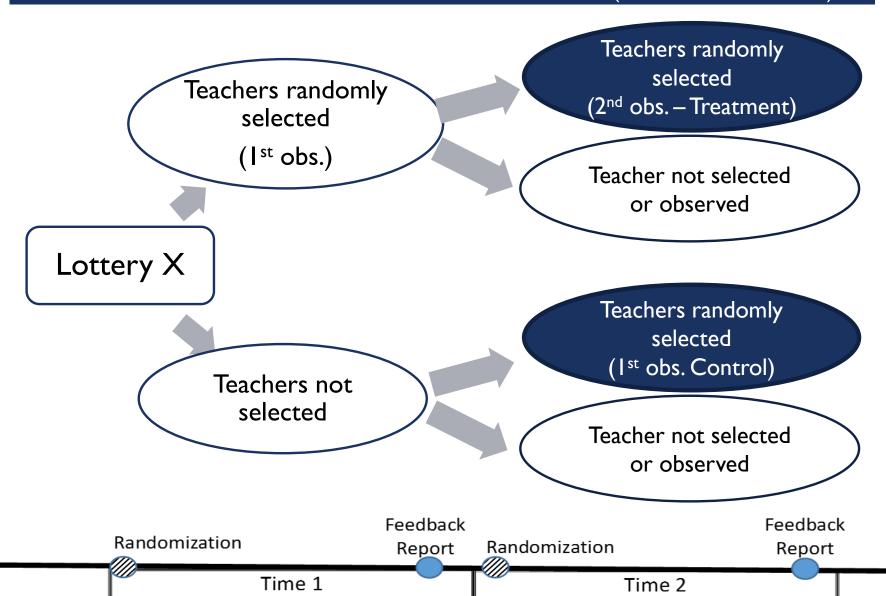
Smith, M., Dickinson, D., Sangeorge, A., & Anastasopoulos, L. (2002). Early literacy and language classroom observation scale (ELLCO). Baltimore, MD:

ELLCO ELEMENTS – LANGUAGE, LITERACY, AND CURRICULUM

- 7. Oral Language Facilitation
- 8. Presence of Books
- 9. Approaches to Book Reading
- 10. Approaches to Children Writing
- 11. Approaches to Curriculum Integration
- 12. Recognizing Diversity in the Classroom
- 13. Facilitating Home Support for Language Literacy
- 14. Approaches to Assessment



NATURAL RANDOM ASSIGNMENT (RQI – CONTROL)



THEORETICAL FRAMEWORK

Individualized Feedback Increased
Awareness
of Needs (&
Strengths)

Effort to Address Needs



Improved Classroom Quality Improved Child Outcomes

Sharing Best Practices with Colleagues



Improved Provider Quality



OUTCOME MEASURES

- Early Language and Literacy Classroom Observation Tool (ELLCO), Research Edition (Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002)
- Ohio's Step Up To Quality (SUTQ) ratings
- Get it! Got it! Go! (McConnell & McEvoy, 2013)
- Ohio's Kindergarten Readiness Assessment-Literacy (KRA-L)
- Ages and Stages Questionnaire: Social Emotional (ASQ:SE) (Squires & Twombly, 2002)

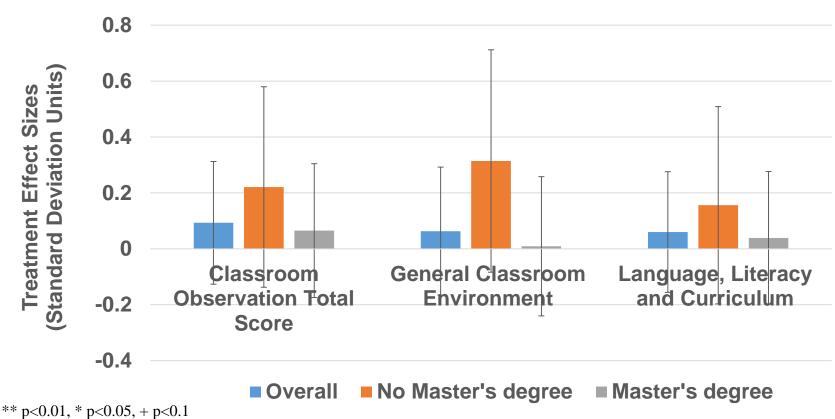
ANALYTIC SAMPLES BY OUTCOME

	Number of Non-degenerate Lotteries	Number of Teachers	Number of Treatment Teachers	Number of Control Teachers
Full Sample	413	8,088	1,568	6,520
Analytic Sample for Classroom Outcomes	74	790	175	615
Analytic Sample for Provider Outcomes	238	2,914	603	2,311
Analytic Sample for Child Outcomes	228	4,351	840	3,511
		(79,754 children)	(16,442 children)	(63,312 children)

Note. The numbers provided are unduplicated within lottery. However, teachers may be counted more than once if they were included in more than one lottery within or across rounds.

EFFECTS DID NOT VARY BY LEVEL OF **EDUCATIONAL ATTAINMENT**

ELLCO Outcomes on ITT Treatment Status: Education Level



790 teachers

242 Lottery X Post-treatment measurement round fixed effects

QUALITY INCREASED TO A GREATER EXTENT FOR PROVIDERS WITH MORE TEACHERS TREATED

2SLS Regressions of SUTQ Rating on Proportion of Treated Teachers Instrumented by Teacher Treatment Status and Teacher Covariates

