



ELLM Presenter

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Introduction

This pilot study presents evidence of the reliability and validity of a fidelity-of-implementation instrument designed to measure teachers' instructional practices in using the critical components of emergent literacy identified by research as necessary to future reading and school success:

- Read Aloud to Children/Print Concepts
- Oral Language
- Emergent Writing
- Phonological Awareness
- Letter/Sound

The instrument was designed to measure two aspects of each component, Pedagogical Quality and Time-on-Task

Methodology

To determine teachers' level of fidelity of implementation, teachers, asked to conduct lessons as usual, were videotaped for an entire day during March and again in May. Trained assessors segmented the tapes to (1) identify the implementation of the literacy components, (2) determine the total length in minutes of the segments using each literacy component (Time-on-Task), and (3) rate the levels of Pedagogical Quality using specific literacy component items on the instrument. An observed item scores 1, an unobserved item scores 0. The component score is the proportion of the items observed.

Methodology 2

Scoring of Pedagogical Quality

Component	Number of Items
Print Concepts	17
Oral Language	19
Emergent Writing	12
Phonological Awareness	7
Letter/Sound	8

Methodology 3

Assessor Training

Assessors met weekly to practice segmenting the videotapes to identify literacy component episodes, clarify component boundaries, and establish videotaping guidelines. Group and individual practice continued until assessors were consistently segmenting tapes, establishing Time-on-Task, and rating Pedagogical Quality. At this point, assessors were certified to use the fidelity-of-use instrument.

Methodology 4

Participants

Teachers participating in the PCER study were assigned to ELLM or waitlist control (W-L Control). ELLM teachers received intensive 2-day summer training and ongoing professional development support focused on helping them to become more proficient in implementing instructional strategies and activities that address the five components. W-L Control teachers received no training in addition to that routinely provided by the curriculum developers and center directors.

Methodology 5

Table of Participating Teachers

Time	Number of ELLM Teachers	Number of WL Control Teachers
Time 1	17	10
Time 2	19	10
Both Times	12	5



Results 2

The pilot study of the fidelity-of-use instrument presents evidence of the reliability and validity of scores obtained by trained assessors using the instrument.

Time onTask, Mean Time onTask (inminutes), Time 1

Trait	W L Control (n=10)	ELLM (n=19)
Print Concepts Time	4.4	8.4
Oral Language Time	12.1	11.0
Emergent Writing Time	4.6	13.7
Phonological Awareness Time	0.4	8.4
		(n=10)

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Results 3

Reliability

Cronbach's coefficient alpha was calculated for each Pedagogical Quality component for each videotaping time. The results were averaged to form overall measures of internal consistency.

Results 4

Cronbach's Coefficient Alpha of Internal Consistency

Category	Number 1 (n=29)	Number 2 (n=30)	Average
Print Concepts	.9365	.9390	.9378
Oral Language	.7019	.6902	.6961
Emergent Writing	.8379	.8952	.8666
Phonological Awareness	.9006	.9209	.9108
Letter/Sound	.9105	.9353	.9229

The internal consistency for the Pedagogical Quality component items was consistent across times and ranged from a low of .69 on Oral Language to a high of .94 on Print Concepts. Inner reliability for Time-on-Task and Pedagogical Quality is yet to be determined.

Results 5

Validity

Evidence supporting the validity of the Pedagogical Quality scores comes from three sources:

- External construct validity using Multitrait-Multimethod Matrix to present evidence of trait validity.
- Construct validity evidenced by the convergence of the measures across groups. Because videotaped teachers are either ELLM or W-L Control, Maped

Results 6

Trait Validity: Multitrait -Multimethod

The coefficients in the validity diagonal (bold lower left) provide convergent evidence. The lack of significant correlations in the yellow triangles provides evidence that measures discriminate among traits.

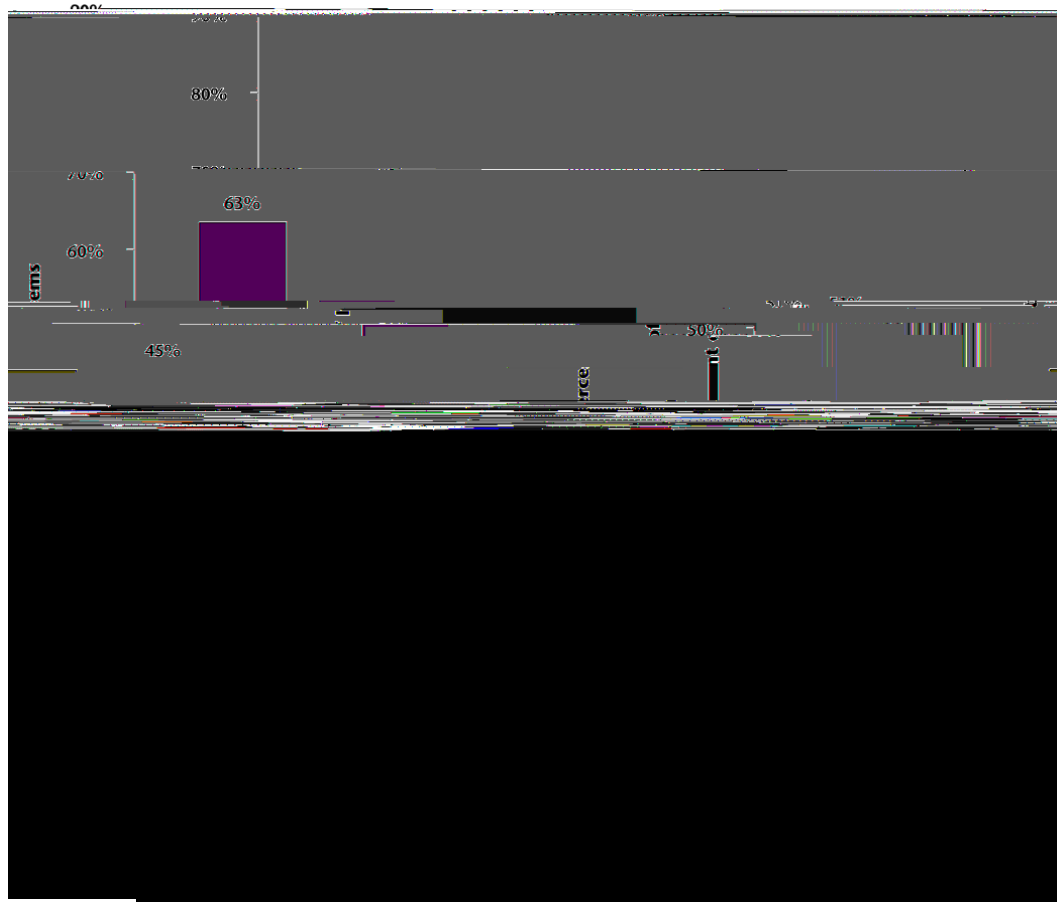
Results 8

Trait Validity: Multitrait-Multimethod

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Time 1: March 2003







First-Order Correlations

Test	Posttest	Pedagogical Quality Component Correlations
TERA-3		



- Provide evidence of inter-rater reliability for both the Time-on-Task and Pedagogical Quality measures of teachers' use of the critical literacy components in their instruction.
- Restructure the Oral Language component items to clearly establish distinguishable boundaries for the construct.
- Improve the Letterd.7 (o)4.5 yy65]3 Tr.58 ihiauLeie.-(h)-.3 T.8 (i)(c)rd.a yy65]ch

