

# Early Learning Coalition of Duval

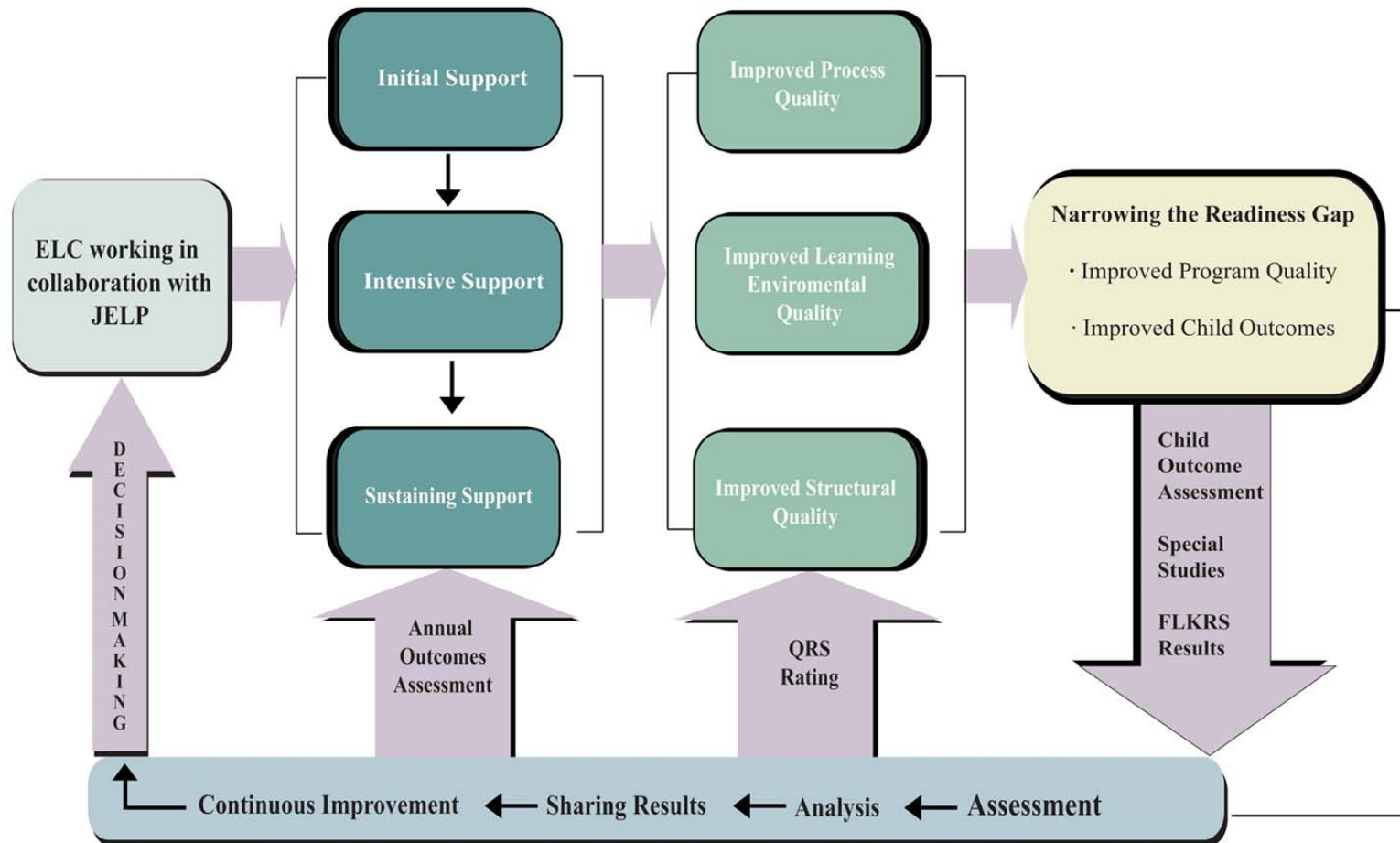
2005-2006 Report

*A Presentation by  
The Florida Institute of Education at the University of North Florida*



October 25, 2006

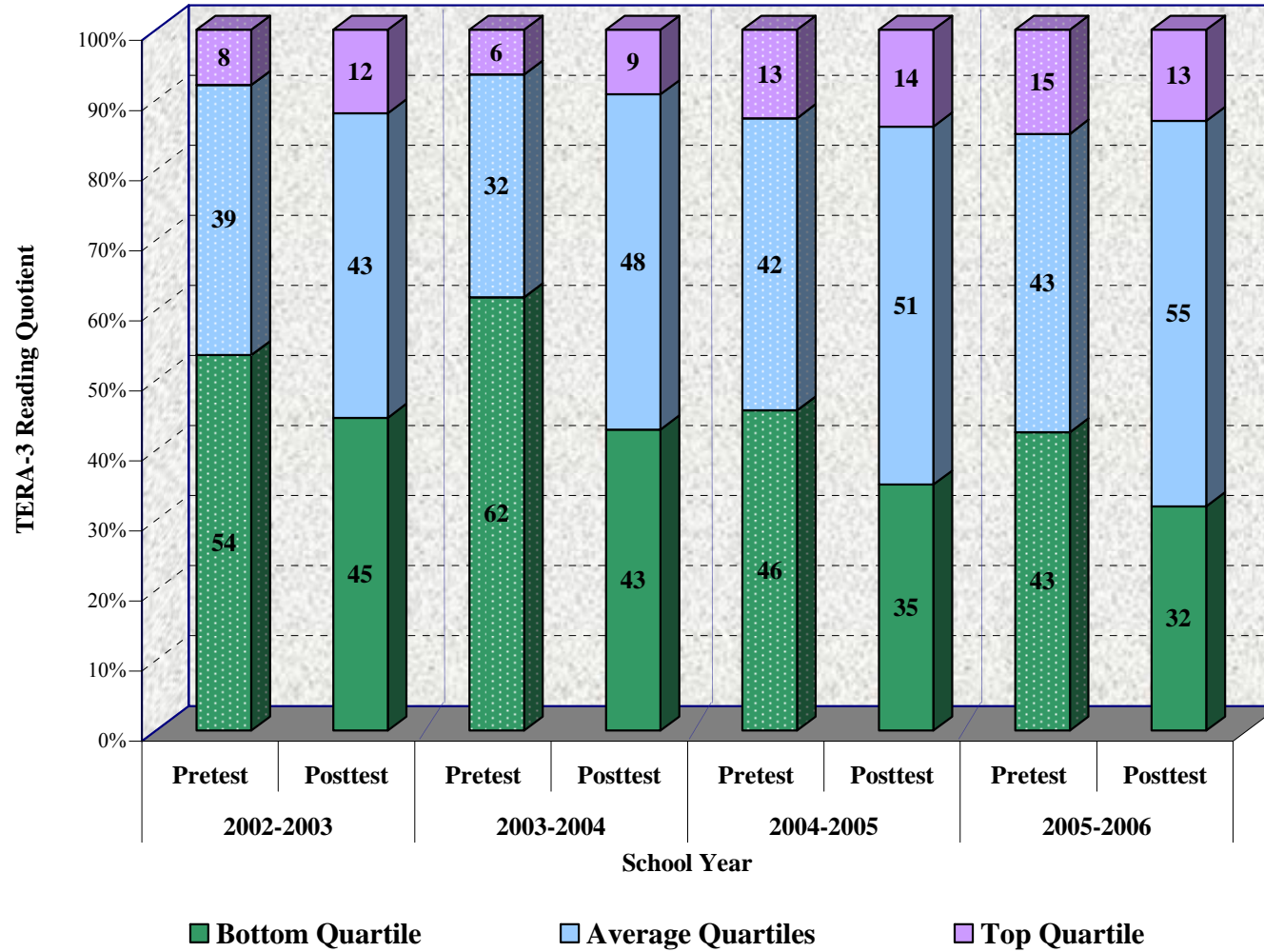
# Intensive Support & Coaching Increase School Readiness An Emerging Model



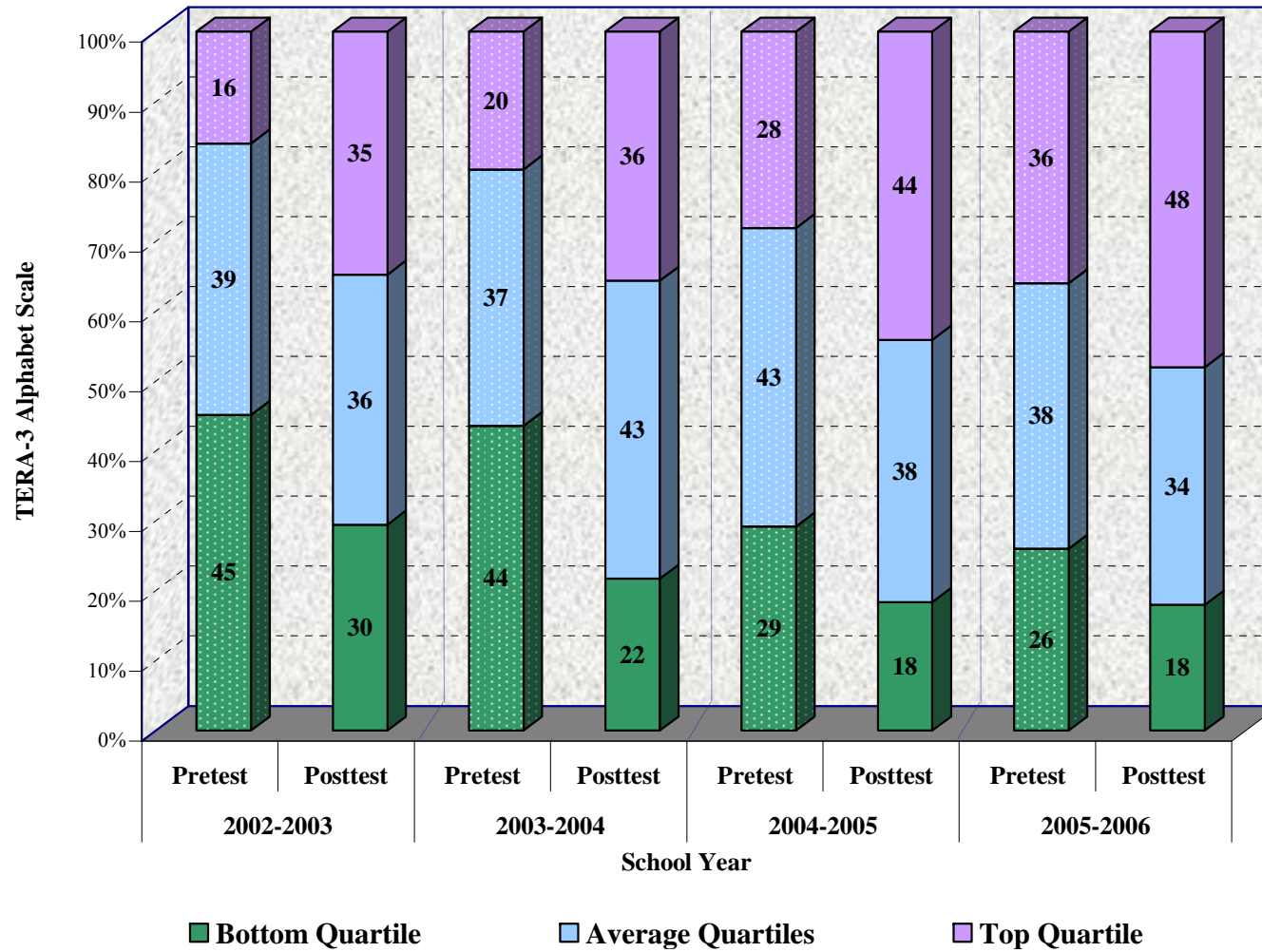
## Intensive Support & Coaching Increase School Readiness Four Years of Success in Jacksonville

TEST	2002-2003			2003-2004			2004-2005			2005-2006		
	Fall	Spring	Effect Size	Fall	Spring	Effect Size	Fall	Spring	Effect Size	Fall	Spring	Effect Size
TERA-3 Mean Percentile	n=394 Sampled			n=637 Sampled and Combined			n=1588			n=758 Sampled		
Reading Quotient	25th	32nd	0.19	20th	32nd	0.35	31st	38th	0.17	35th	41st	0.15
Alphabet Scale	33rd	53rd	0.50	36th	58th	0.57	50th	67th	0.43	58th	69th	0.30
Conventions of Print Scale	26th	25th		20th	22nd		25th	25th		27th	27th	
Meaning Scale	31st	30th		26th	27th		32nd	31st		31st	33rd	
ALRI	n=1431			n=1426			n=2055			n=2300		
<i>Proficient</i>	18%	61%		22%	69%		23%	69%		39%	74%	

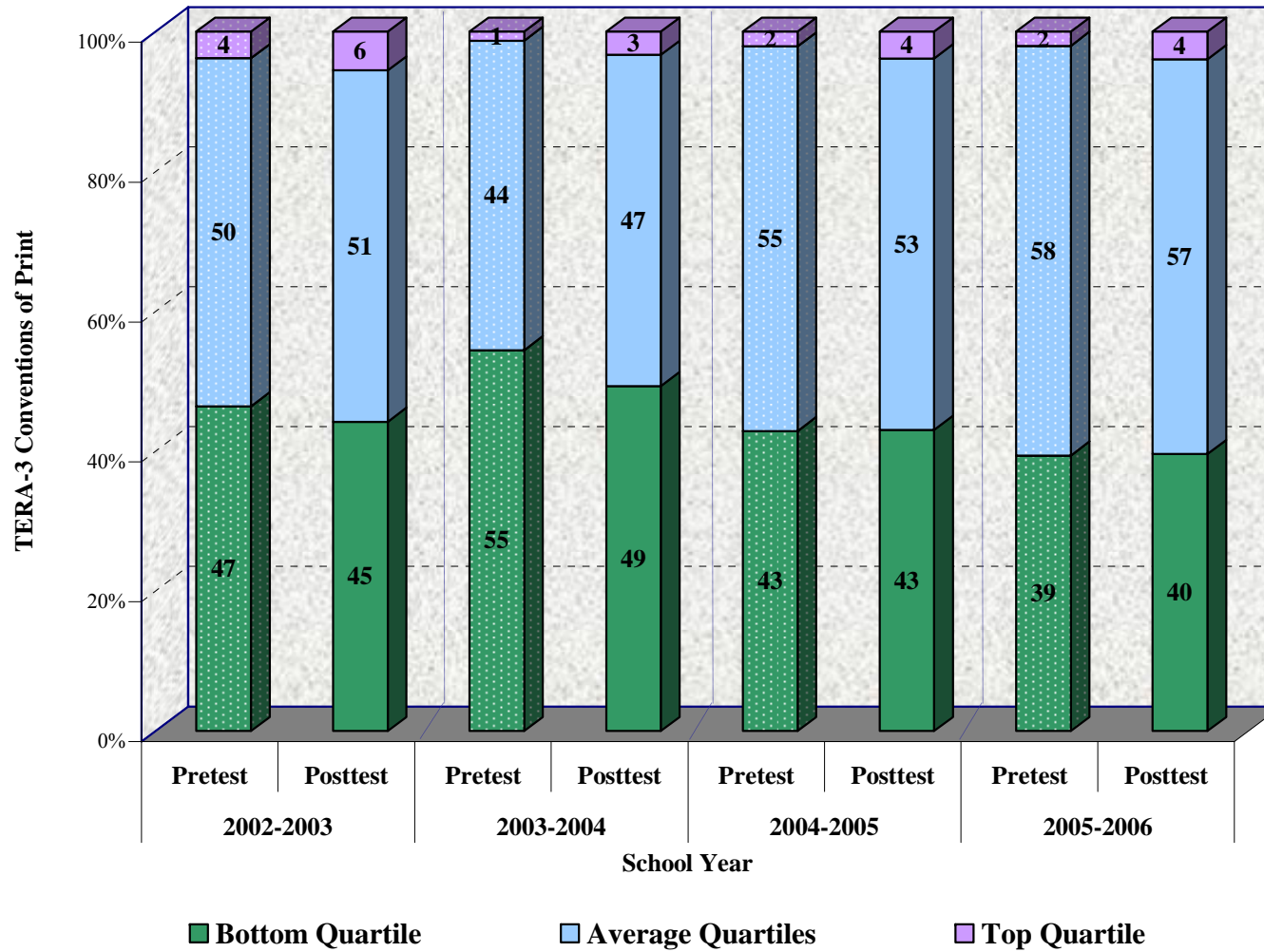
# Intensive Support & Coaching Increase School Readiness Four Years of Success in Jacksonville: TERA-3 Reading Quotient Scores



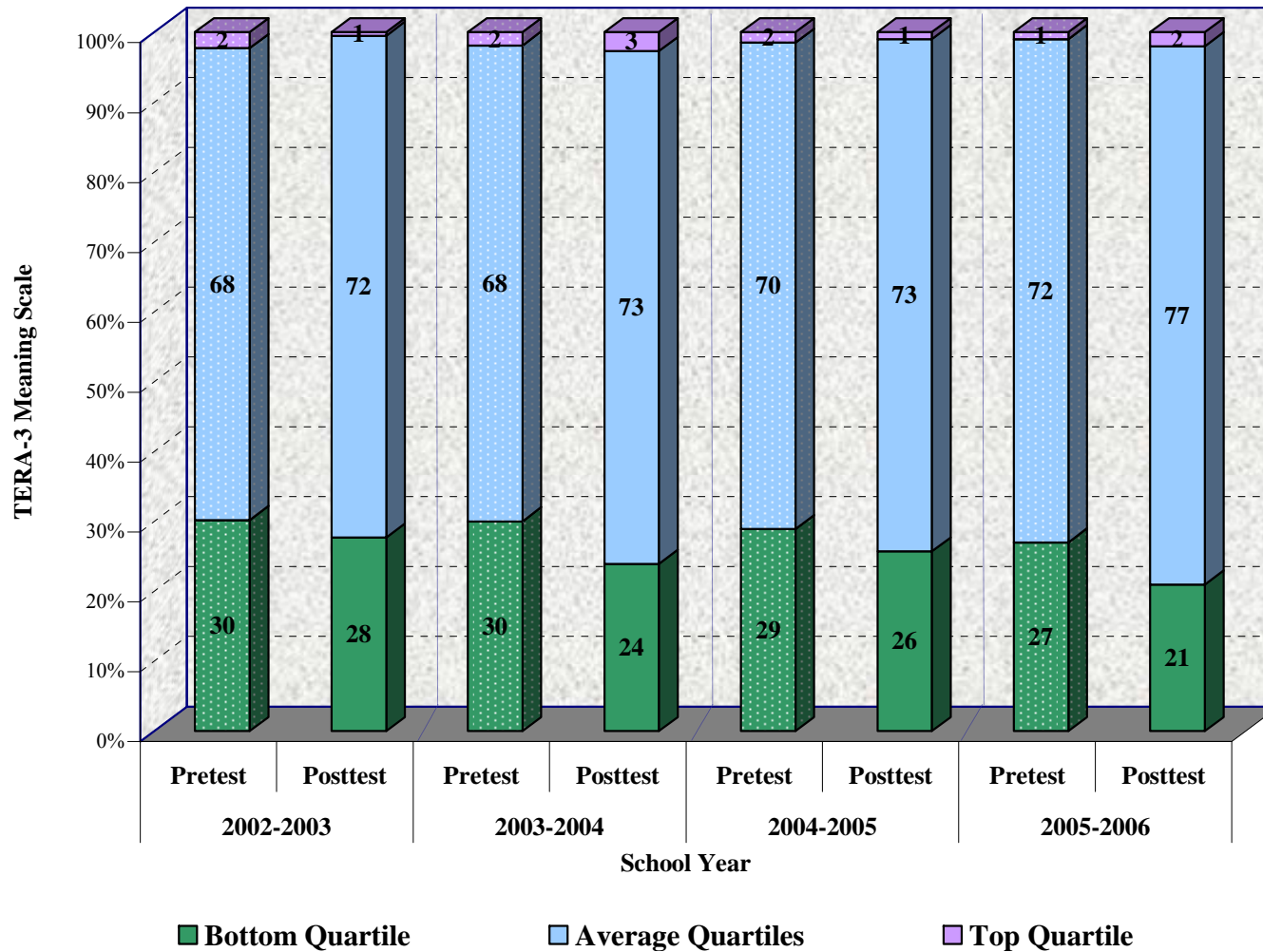
# Intensive Support & Coaching Increase School Readiness Four Years of Success in Jacksonville: TERA-3 Alphabet Scale Scores



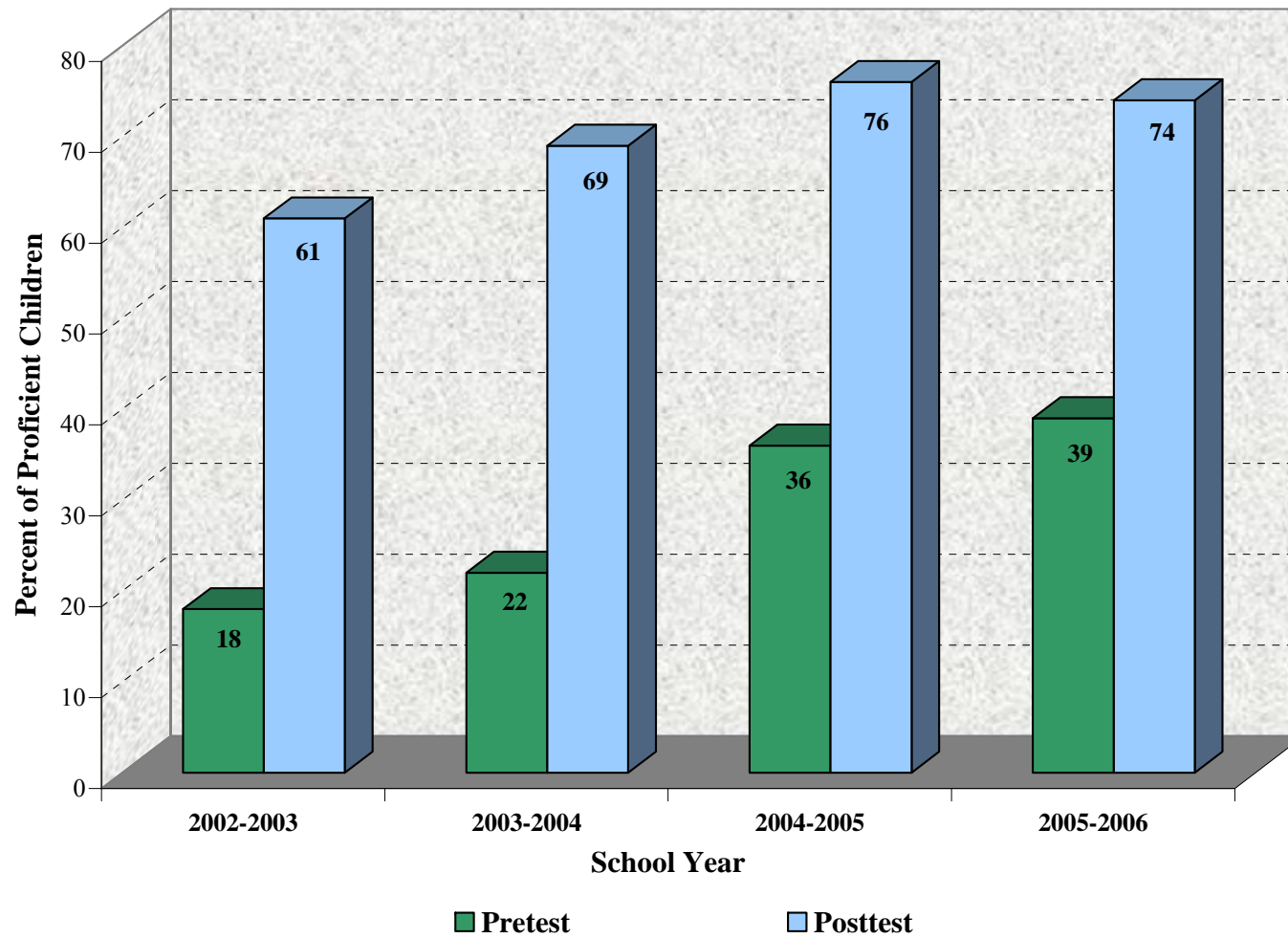
# Intensive Support & Coaching Increase School Readiness Four Years of Success in Jacksonville: TERA-3 Conventions of Print Scale Scores



# Intensive Support & Coaching Increase School Readiness Four Years of Success in Jacksonville: TERA-3 Meaning Scale Scores



## Intensive Support & Coaching Increase School Readiness Four Years of Success in Jacksonville: ALRI Scores



# Intensive Support & Coaching Increase School Readiness BRIGANCE Screens

- BRIGANCE Screens assess areas of general readiness
- 1,195 ELC/JELP coached children have pre- and posttest scores on the BRIGANCE Quotients
  - Norm-referenced and standardized scores

Scale	Pretest Mean	Posttest Mean	p -value	Effect Size
<b>BRIGANCE Quotient</b>	88.40	97.88	<.0001	0.63

**The ELC/JELP children's school readiness improved over the school years & the difference is meaningful.**

# Intensive Support & Coaching Increase School Readiness BRIGANCE Screens

- BRIGANCE Screens are used to identify children who:
  - May need additional services
  - Are potentially gifted & talented

	Pretest Percentage	Posttest Percentage	Fisher's Exact Test ChiSq p-value
<b>Referral</b>	38.7	13.8	<.0001
<b>Gifted &amp; Talented</b>	1.9	3.3	<.0001

These results suggest that improved school readiness resulted in the identification of:

- Fewer children who may need additional services
- More children who are potentially gifted & talented

## Intensive Support & Coaching Increase School Readiness BRIGANCE Screens

- The sampling plan allows the comparison of readiness gains made by coached and non-coached school readiness children.

<b>Categorization</b>	<b>Mean Participating Sites N=85</b>	<b>Mean Non-Participating Sites N=95</b>	<b>p-value</b>	<b>Effect Size</b>
<b>Fall BRIGANCE Quotient</b>	<b>82.04</b>	<b>82.83</b>	<b>&lt;.0001</b>	<b>0.22</b>
<b>Spring BRIGANCE Quotient</b>	<b>95.22</b>	<b>91.36</b>		

- Children in coached sites had greater year-end school readiness than children in non-coached sites.
- The greater level of school readiness is large enough to be meaningful.

## **The Longitudinal Study Research Question**

**Were children who participated  
in ELC/JELP preschool classes  
more ready for kindergarten  
than similar children who did  
not participate?**

# The Longitudinal Study Research Design: Data

## Combined

- 2004-2005 ELC/JELP Evaluation Data
- 2005-2006 Duval County Public Schools Kindergarten Data
- 2005-2006 Florida State School Readiness Data

Resulted in 2 distinct groups of DCPS 2005-2006 kindergarten children with Florida school readiness scores

- 1,581 Children who experience 2004-2005 ELC/JELP preschool.
- 6,166 Comparison children who did not experience 2004-2005 ELC/JELP preschool.

# The Longitudinal Study

## Research Design: Outcome Measures

- *Early Screening Inventory-Kindergarten (ESI-K)*
  - Identifies children who may be at-risk of school failure
  - Samples *domains of development* rather than academic readiness
  - State no longer uses this instrument
- *Dynamic Indicators of Basic Early Literacy Skills (DIBELS)*
  - Letter Naming Fluency (LNF)
  - Initial Sounds Fluency (ISF)

# The Longitudinal Study

## Methodology: Propensity Score Stratification

Did Not Have a Control Group.

Propensity Score Stratification Was Used to Estimate the Causal Effects of ELC/JELP Participation on School Readiness

- Used background characteristics to determine the probability of participating in an ELC/JELP preschool program:

Gender	Ethnicity (Black & Non-Black)
Age	Free/Reduced Lunch Status
ESOL	Reading First School Attendance Boundary

- Children with the same estimated Propensity Score are perfectly matched on available background characteristics.

# The Longitudinal Study

## Methodology: Propensity Score Stratification

- The Children are:
  - Ranked on the basis of their Propensity Scores
  - Divided into 10 equal strata/groups
- The Children in:
  - Each stratum/group has similar background characteristics.
  - The 1st stratum/group are the kindergarten children *most likely* to have participated in ELC/JELP preschool.
  - The 10th stratum/group are the kindergarten children *least likely* to have participated in ELC/JELP preschool.

# The Longitudinal Study

## Methodology: The 10 Strata/Groups

Stratum	n	Percent ESOL	Percent Free Lunch	Percent Reading First School	Percent Black	Percent Boys	Mean Age*
1	374	0.00	73.11	63.81	99.56	48.69	67.01
2	301	0.00	71.70	22.79	100.00	52.83	67.28
3	255	0.00	54.94	19.33	88.52	51.45	67.45
4	166	0.29	44.12	12.77	54.43	50.80	67.11
5	141	0.29	29.80	8.28	11.92	47.38	66.85
6	111	0.00	27.00	3.05	9.72	52.25	67.32
7	89	1.45	24.09	4.21	8.56	54.86	67.43
8	59	1.16	23.40	0.87	5.23	49.27	67.35
9	45	6.38	24.53	4.64	6.24	46.88	67.45
10	20	27.03	24.27	1.50	5.52	46.37	67.69

- ELC/JELP children are most likely
  - Economically disadvantaged
  - Black
  - Attending Reading First schools
  - English speakers

# The Longitudinal Study

## Results: Across Tests by Stratum/Group

Test	Statistical Test	<i>Strata</i>										
		1	2	3	4	5	6	7	8	9	10	All
ESI-K	<i>t</i> -test		✓ <sup>+</sup>	✓ <sup>+</sup>			✓ <sup>+</sup>	✓ <sup>+</sup>				✓ <sup>+</sup>
	Chi-Sq		✓	✓			✓ <sup>+</sup>					✓ <sup>+</sup>
LNF	<i>t</i> -test	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>		✓ <sup>+</sup>
	Chi-Sq	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓ <sup>+</sup>	✓	✓ <sup>+</sup>
ISF	<i>t</i> -test			✓ <sup>+</sup>	✓ <sup>+</sup>			✓ <sup>+</sup>		✓ <sup>+</sup>		✓ <sup>+</sup>
	Chi-Sq	✓ <sup>+</sup>	✓		✓ <sup>+</sup>	✓		✓ <sup>+</sup>			✓	✓ <sup>+</sup>

*Note:* ✓<sup>+</sup> Indicates a significant difference at  $\alpha \leq .05$ .  
 ✓ Indicates a significant difference at  $\alpha \leq .10$ .

- ELC/JELP children achieved a higher level of school readiness than the comparison children on all 3 instruments

## The Longitudinal Study Conclusions

**Q:** Were children who participated in ELC/JELP preschool classes more ready for kindergarten than similar children who did not participate?

**A: YES!** ELC/JELP children achieved a higher level of school readiness than comparison children across all three instruments: ESI-K, Letter Naming Fluency, and Initial Sound Fluency.

# School Readiness and Early Literacy Achievement Conclusions

**Q:** Does providing intensive support and coaching to centers located in low-income neighborhoods increase children's readiness for school and early literacy skills?

**A:** **YES!** ELC/JELP children's BRIGANCE Screen school readiness scores improved over the school year, and the difference is meaningful.

**YES!** ELC/JELP children's TERA-3 Reading Quotient and Alphabet scale early literacy scores improved over the last four years.

**YES!** ELC/JELP children's ALRI alphabet letter recognition scores improved over the past four years, with the percentage of *proficient* ELC/JELP children exceeding the ECLS-K national sample.