Project ELLA:
English Language and Literacy Acquisition
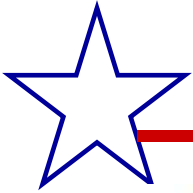
Rafael Lara-Alecio, Texas A&M University; Beverly J. Irby, Sam Houston State University; Patricia G. Mathes, Southern Methodist University
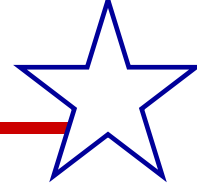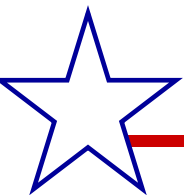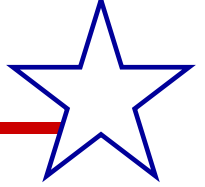
CONTEXT OF THE STUDY

Aldine ISD is a Learning First Alliance District and a Two-time Broad Finalist
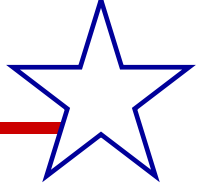

Houston Texas

GOALS FOR PROJECT ELLA

- To determine which instructional delivery model is most effective in promoting English language acquisition and literacy.

- To study under what circumstances certain students respond more favorably to a specific model.

- Follow children from kindergarten through grade 3.
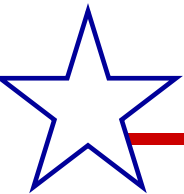
Project ELLA RESEARCH QUESTIONS

1. How effective are the structured English immersion and transitional bilingual education programs in developing English proficiency and reading achievement for English-language learners whose first language is Spanish?

2. Is there a difference in the effectiveness of each model type when instruction is enhanced to reflect best practice in language and literacy instruction as compared to instruction typically provided within each program type?
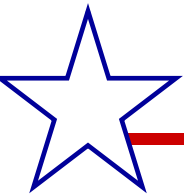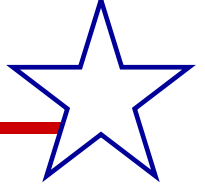
4 Conditions

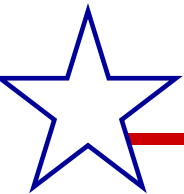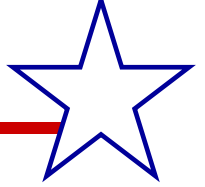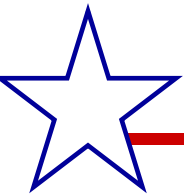|	Structured English Emersion	Transitional Bilingual Education
Enhanced	• 100% English full day • 70 minutes ESL Intervention • Extra 10 minutes for struggling students	• 70%(Spanish) /30% (English); • 70 minutes ESL Intervention • Extra 10 minutes for struggling students
Typical	• 100% English full day • 45 minutes ESL	• 80%(Spanish) /20% (English) • ESL – 45 minutes

Research Design

|	SEI	TBE	Total n
Enhanced (11 schools total)	Classrooms: 13 Students: 172	Classrooms: 17 Students: 290	Classrooms: 30 Students: 462
Typical Practice (12 schools total)	Classrooms: 19 Students: 174	Classrooms: 11 Students: 180	Classrooms: 30 Students: 354
Total	Classrooms: 32 Students: 350	Classrooms: 28 Students: 472	Classrooms: 60 Students: 816

The schools were randomly assigned to treatment type during 2004-2005 school year with classrooms nested within schools and children and teachers nested within classrooms.
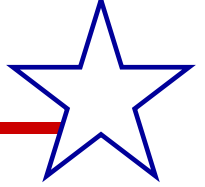
Student **Intervention** Tiers
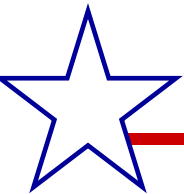
- <u>Tier 1</u>:
Regular Language Arts (Spanish or English)

- <u>Tier 2</u>:
ESL instruction (75 minutes)

- <u>*Tier 3:*</u>
Communication Games (English) (10 minutes)
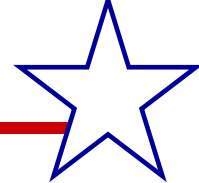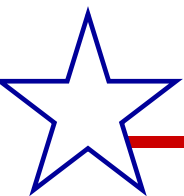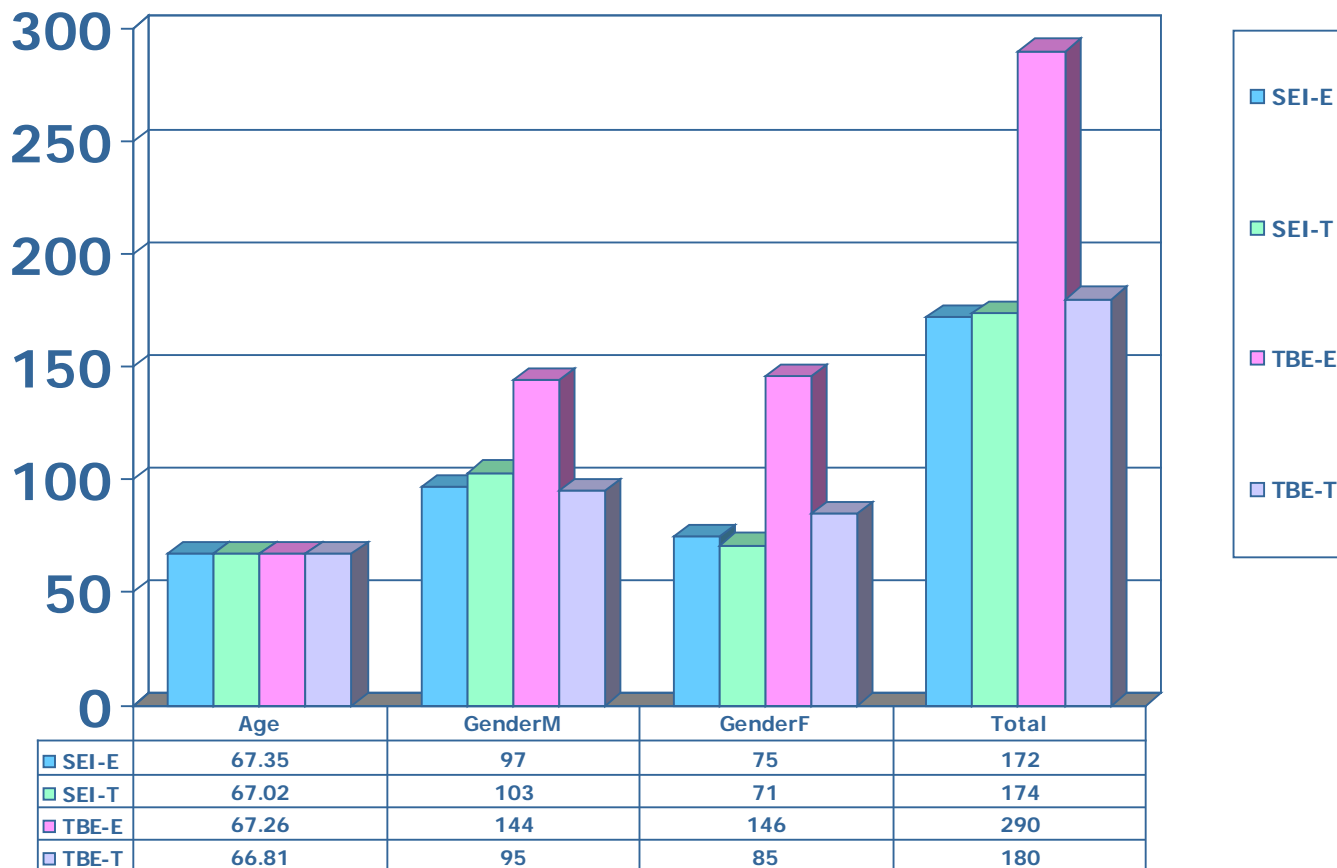 - with lower functioning students only
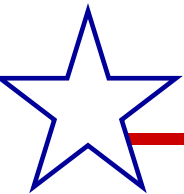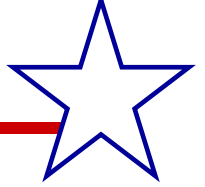
TIME DISPERSEMENT

1. 45 minutes--*Santillana Intensive English*

2. 10 minutes--Daily Oral Language using *Question of the Day*

3. 15 minutes-- *Story Telling for English Language and Literacy Acquisition [STELLA]*

4. 10 minutes-- was spent with the lowest performing students on communication games; more than one group served per classroom)

Demographics of ELLA - Kindergarten

	Age	GenderM	GenderF	Total
SEI-E	67.35	97	75	172
SEI-T	67.02	103	71	174
TBE-E	67.26	144	146	290
TBE-T	66.81	95	85	180

Pre-Post Student Measures

- **CTOPP/STOPP (Rapid Object Naming, Rapid Letter Naming, Blending Phonemes into Words)**
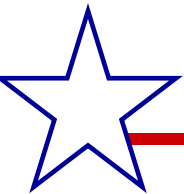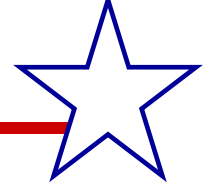
- **WLPB-R (Picture Vocabulary, Listening Comprehension, Verbal Analogies)**

- **TIMES (Letter Names, Letter Sounds, IRT Word Reading**

- **Tejas Lee & TPRI**

- **IPT**

- **ITBS**

- **Naglieri Nonverbal Abilities Test**

- **Hispanic Bilingual Gifted Screening Instrument**

- **Santillana Benchmarks**

- **Teacher Bilingual Observation Protocal (TBOP) – Student Language of Response**

Teacher/Classroom Characteristics Theory

1 Aural Reception
2 Verbal Expression
3 Reading Comprehension
4 Written Communication

Communication Mode

Language of Instruction

Time

Language Content

1 Social Routines
2 Classroom Routines
3 Light Cognitive Content
4 Dense Cognitive Content

1 L1
2. L1 introduces L2
3. L2 clarified by L1
4. L2

Activity Structures
(Academic & non-academic)

Four Dimensional Transitional Bilingual Pedagogical Theory (Lara-Alecio & Parker, 1994)

TBOP on PDA
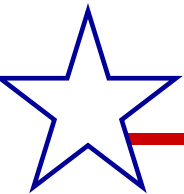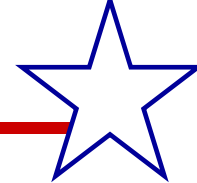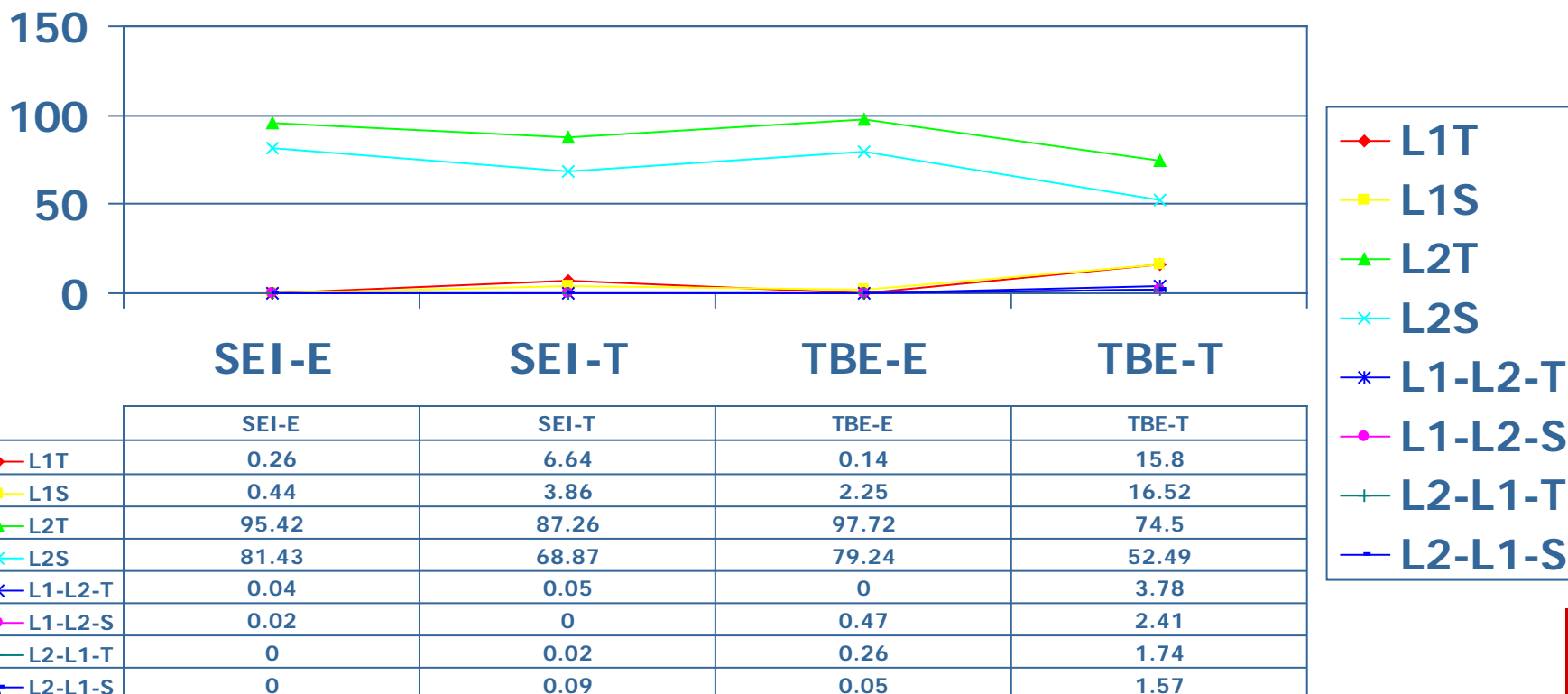
Classroom Observation Results
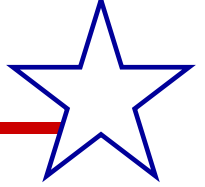
Language of Teacher

- SEI-Enhanced TBE-Enhanced were observed less frequently speaking in L1 (Spanish).

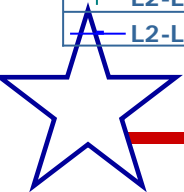- SEI-Enhanced TBE-Enhanced were observed speaking in English at a higher rate during their ESL instructional time.

Language of the Student

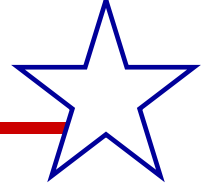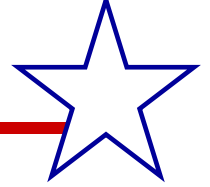|	SEI-E	SEI-T	TBE-E	TBE-T
L1T	0.26	6.64	0.14	15.8
L1S	0.44	3.86	2.25	16.52
L2T	95.42	87.26	97.72	74.5
L2S	81.43	68.87	79.24	52.49
L1-L2-T	0.04	0.05	0	3.78
L1-L2-S	0.02	0	0.47	2.41
L2-L1-T	0	0.02	0.26	1.74
L2-L1-S	0	0.09	0.05	1.57

The Language of the Student mirrored the Language of the Teacher.

Language Content

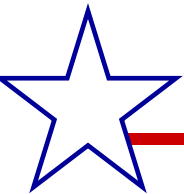|	Social	Academic	Light	Dense
SEI-E	3	26.27	57.81	12.92
SEI-T	6.79	39.6	48.55	7.06
TBE-E	1.06	20.46	59.83	18.71
TBE-T	8.38	31.77	48.06	11.79
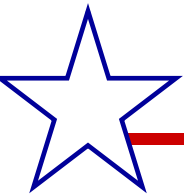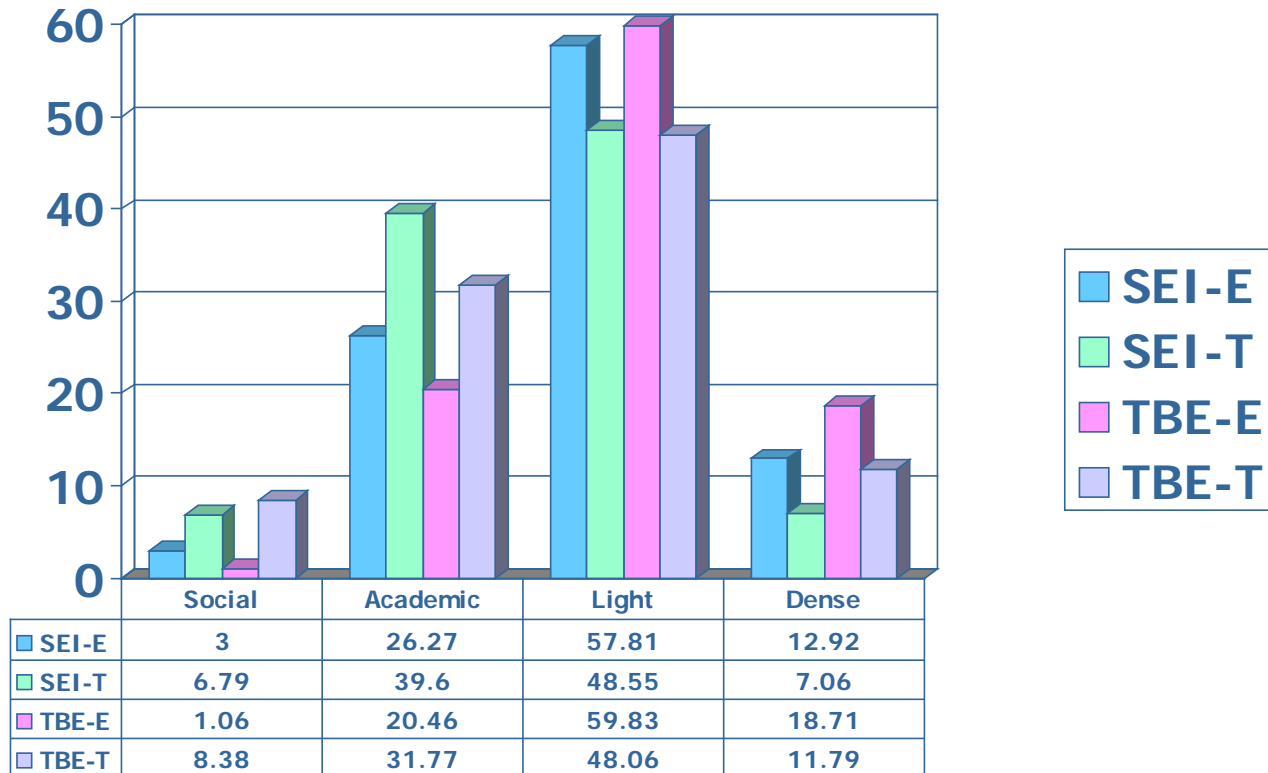
Communication Mode

- Although with low frequencies, writing and reading were observed more often in typical practice classrooms (5.12%; 7.73%) than in enhanced classrooms (.82%;.49%).

- Listening was observed more frequently in typical practice classrooms (47.34%) than in enhanced classrooms (34.54%).

- Verbal was observed more often in enhanced classrooms (49.83%) than in typical practice classrooms (29.47%).

- The most frequent combination of modes observed was Aural-Verbal with it more frequently observed in the enhanced classrooms (97.09%) as opposed to the typical practice classrooms (70.47%).

- Any mode that was inclusive of reading, even though with minimum occurrences, was more frequently observed in typical practice classrooms as opposed to enhanced classrooms.
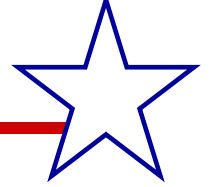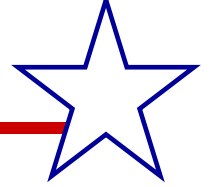
Activity Structure

- The Activity Structure most frequently observed as "ask/answer." This was with greater frequency in the enhanced classrooms (86.56%) as opposed to the typical practice classrooms (58.20%).

- The next most frequently observed activity structure was "lead/perform" (enhanced [21.55%] > typical [18.36%]), "demonstrate/listen" (SEI-T [3.86%]>SEI-E [3.36%]; TBE-E [4.46%]>TBE-T [4.55%]); Nonacademic Activities Transition (typical [13.58%] > enhanced [6.83%]).
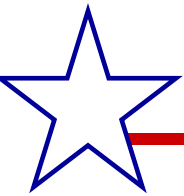
ESL Strategies

- Academic Language Scaffolding- Visual and Modeled Task was observed as the most frequently used strategy in enhanced classrooms (84.53%); it was used less often in the typical practice classrooms (61.24%).

- Leveled questions were more frequently observed in enhanced classrooms (23.22%) than in typical practice classrooms (8.00%).

- Other strategies used more frequently in enhanced classrooms over the typical practice classrooms were: manipulatives and realia (10.13% vs. 5.73%), partner work, preview/review, think aloud, total physical response, and dramatization.
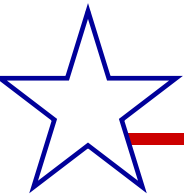
Post-test by cognitive measure
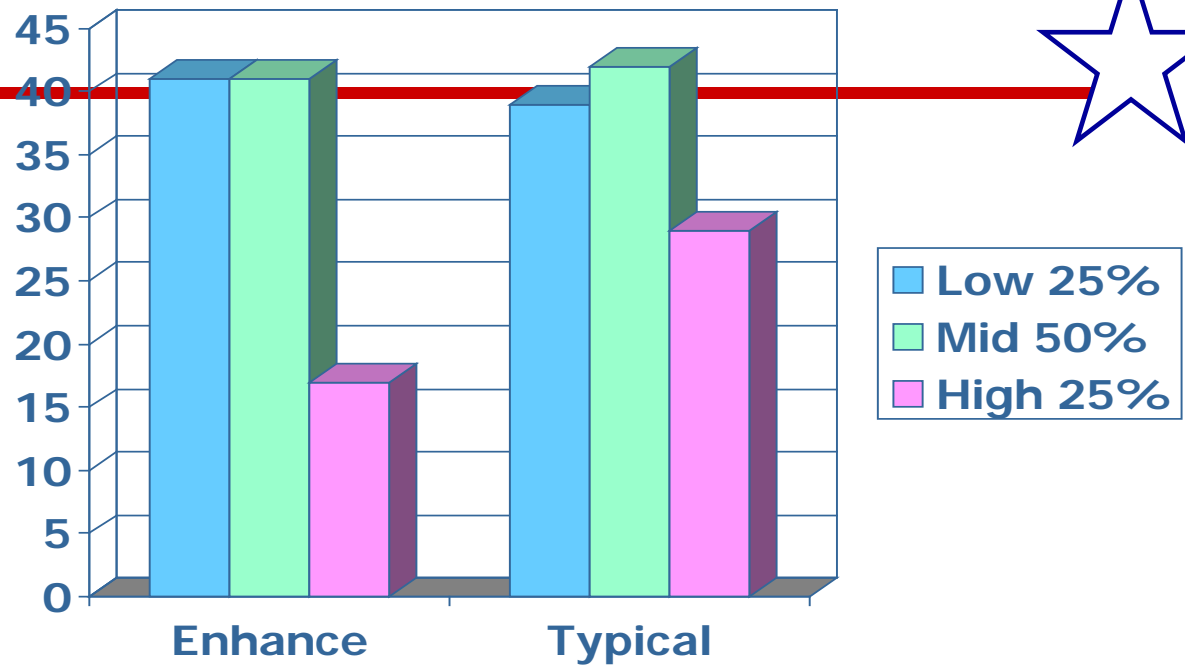
- Box and Whisker Plot of Naglieri Nonverbal Abilities Test (NNAT) by top 25%, middle 50%ile, and lower 25%. In the experimental group the *lower 25%* of the students constituted *42% of the total experimental group* and *38% of the total typical practice group*. The middle *50%ile* on the NNAT constituted *42% of the total experimental and 42% of the total typical practice group*. The **top 25%** scoring on the NNAT yielded **16% in the experimental group and 20% of the typical practice group.**

NNAT Levels compared to Post-Tests Sample– Listening Comprehension

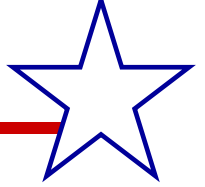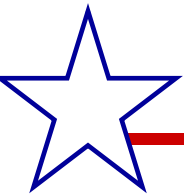|	U 25%	50%	L 25%
SEI-E	10.12	8.03	7.23
TBE-E	5.36	4.68	3.19
SEI-T	12.81	9.17	6.52
TBE-T	5.5	3.89	2.44
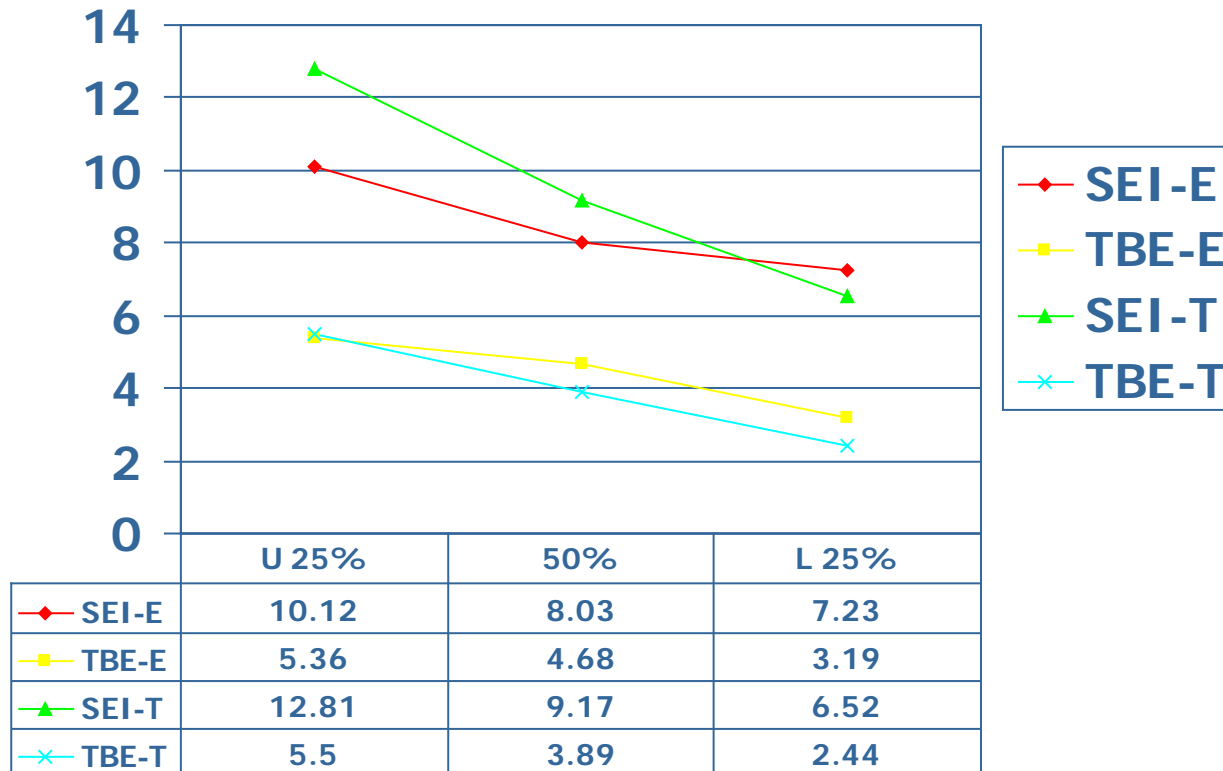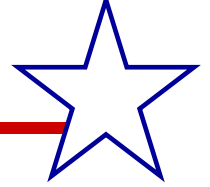
Gain Score Analysis- English

- The experimental groups in SEI and TBE made significantly greater gains on Letter Names and Letter Sounds than did the SEI-T group (p$\leq$.05)

- On IPT, the experimental groups made greater gains than did the control groups.

- On Rapid Object Naming, SEI-E made greater gains than TBE-T, and TBE-E made greater gains than did TBE-T and SEI-T; both experimental groups made greater gains the control groups; SEI-E made greater gains than TBE-E.

- On Blending Phonemes into Words, SEI-E and TBE-E made greater gains than did SEI-T, and SEI-E and TBE-E had no significant difference in gains.

- On IRT Word Reading, SEI-E, SEI-T and TBE-T made greater gains than did TBE-E.

- On Rapid Letter Naming, Picture Vocabulary, Listening Comprehension, and Verbal Analogies, no significant differences were found among gain scores.
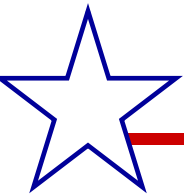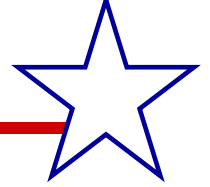
Gain Score Analysis- Spanish

- On the following tests, TBE-E made greater gains than did SEI-E on the following tests: Rapid Object Naming, Rapid Letter Naming, Picture Vocabulary, Listening Comprehension, Letter Names, Letter Sounds, IRT Word Reading, and IPT ($p \leq .01$).

- TBE-E and SEI-E made equivalent gains in Verbal Analogies and Blending Phonemes into Words.

ITBS Scores

SEI-E significantly outperformed TBE-E on all subtests ($p \leq .05$).

Within conditions, TBE-E outperformed TBE-T on the language and math subtests and the Core Total, while SEI-T outperformed the SEI-E on language and listening subtests.

Within conditions, the groups performed no differently on the following: TBE-E=TBE-T (listening, vocabulary, word analysis) SEI-E=SEI-T (vocabulary, word analysis, core total)
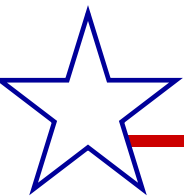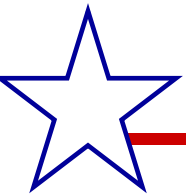
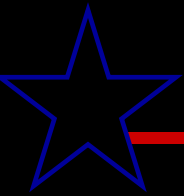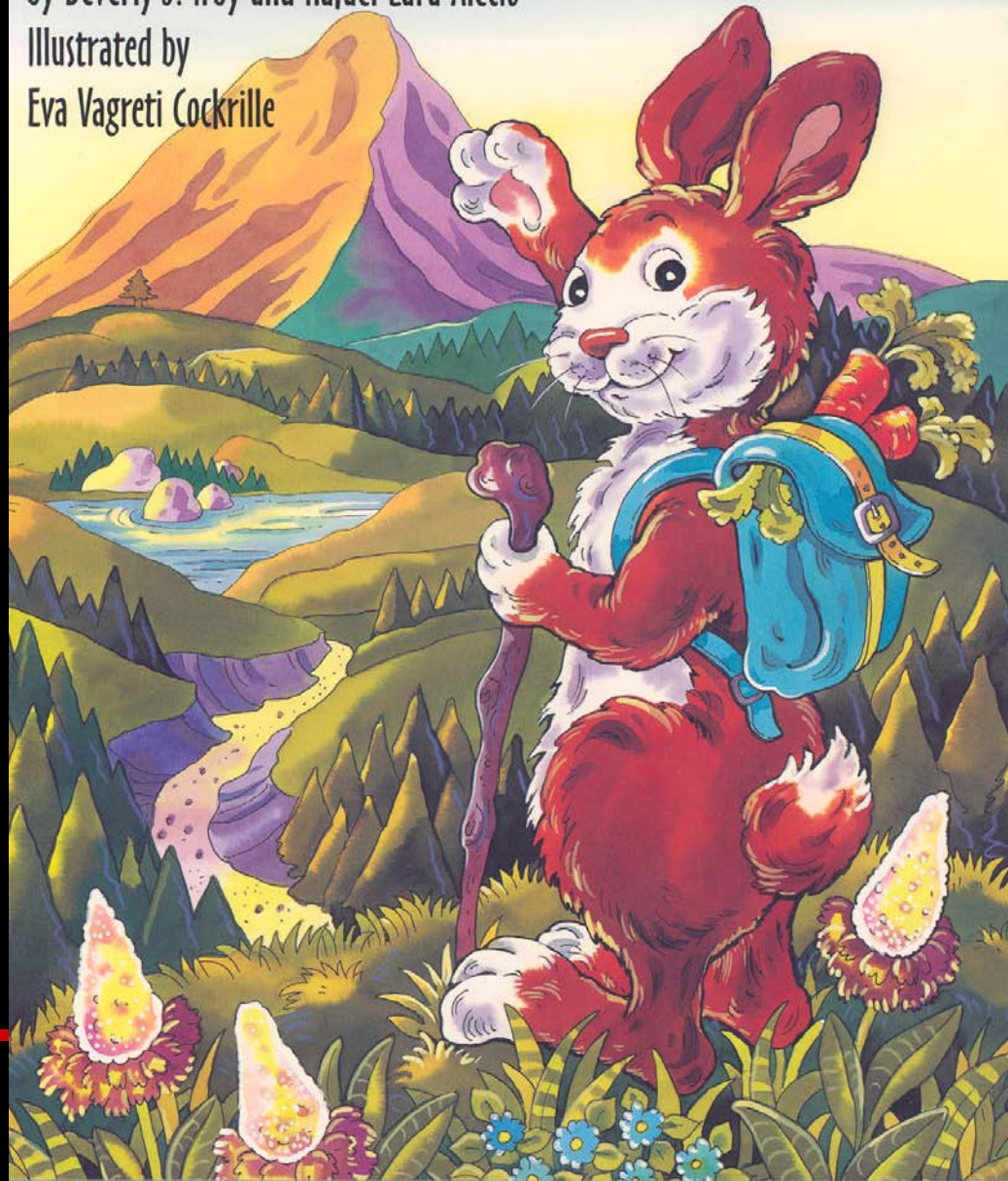# Santillana Benchmark – Second Semester
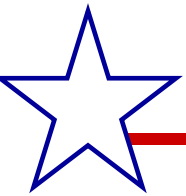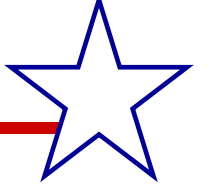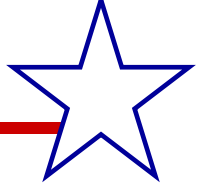
- Teachers reacted that the intervention, particularly for the bilingual classrooms, was effective.

- Here is an example.
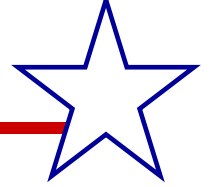
Little Rabbit's Journey

by Beverly J. Irby and Rafael Lara-Alecio

Illustrated by
Eva Vagreti Cockrille

Every evening at dinnertime, the little brown rabbit visited Mr. Armadillo's garden to munch on the fresh green lettuce that grew there.

– "Look, I'm going to _munch_ my _lettuce_."