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Observed Differences in SEAL Bilingual versus Structured English Immersion Classroom Practices

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Teacher Development and Implementation: Study #2

Observed Differences in SEAL Bilingual versus Structured English Immersion Classroom Practices

Loyola Marymount University Center for Equity for English Learners

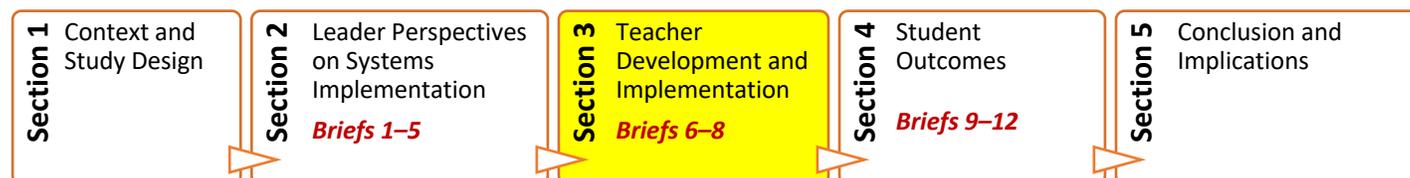## Introduction to the SEAL Model and the 4-Year Research and Evaluation Effort

The Sobrato Early Academic Language Model (SEAL) is a preschool through third grade model that powerfully develops students' language, literacy and academic skills within the context of a whole-school initiative. This intensive approach to language and literacy education is woven into all aspects of the school day where English Learners and native English students learn together. The Model was first piloted in three schools in the Silicon Valley and an initial evaluation of the Model showed significant impact on student achievement, teacher practice, and parent literacy activities. As a result of these pilot findings, SEAL developed a Replication Model, a comprehensive whole-school reform that is implemented systematically and includes teachers, coaches, principals, district leaders, and families.

Loyola Marymount University's Center for Equity for English Learners and the Wexford Institute conducted an external evaluation of the SEAL preschool through third grade Replication Model from fall 2015–fall 2019. This comprehensive research and evaluation study addressed three broad areas: (1) Leader Perspectives and Depth of Implementation, (2) Teacher Development, and (3) Student Outcomes. Twelve districts and 67 schools across California participated. This Research and Evaluation Final Report presents findings that will allow the SEAL team to institute its short- and long-term evaluation and research agenda based on the SEAL Logic Model and desired results for project management, decision-making, refinement, and expansion.

The SEAL Research and Evaluation Final Report is comprised of five sections presented in a series of briefs (see Figure 1) to maximize usability for multiple stakeholders. This brief is part of Section 3.

Figure 1
SEAL Research and Evaluation Final Report Overview

Section 1	Section 2	Section 3	Section 4	Section 5
Context and Study Design	Leader Perspectives on Systems Implementation *Briefs 1–5*	Teacher Development and Implementation *Briefs 6–8*	Student Outcomes *Briefs 9–12*	Conclusion and Implications

Section 3, Brief 7 - Research Focus

This research and evaluation brief presents findings from an investigation of SEAL Cohort 1 (Implementation Y1: 2013-14–Y3:2015-16) classroom implementation. Data were collected using the Observation Protocol for Academic Literacies (OPAL[©])[1] by program type —namely Bilingual/Dual Language (BIL) and Structured English Immersion (SEI) programs to identify differences between BIL versus SEI classroom practices. Part one presents a brief overview of the purpose, participants, and study methods. Part two provides quantitative findings. Part three illuminates qualitative findings by OPAL[©] Domain to contextualize examples of classroom practices. The final section provides a summary of findings and implications.

> **Bilingual vs. SEI Program Model Research and Evaluation Research Question**
>
> What differences exist, if any, between SEAL Cohort 1 Bilingual/Dual Language program and Structured English Immersion teacher practices after their participation in SEAL's professional development?

Part One: Study Methods and Participants

Purpose

The purpose of this study was to examine observed similarities or differences in instructional practices and classroom interactions for a subset of SEAL Cohort 1 (Implementation Year 1: 2013-14–Year 3: 2015-16) teachers in BIL and SEI classrooms upon completion of the SEAL professional development two-year cycle. A comparative analysis for Cohort 1 OPAL[©] observations provided insights on the differences in classroom instruction and interactions across both program types.

Participants

Study participants consisted of a subset of PreK–3rd grade classrooms from SEAL, Cohort 1. We obtained data from a convenience sample of 25 BIL classrooms, and a matched sample of 27 SEI classrooms. Given the study was conducted post-program, all participants had minimally (1) received at least two years of SEAL professional development and coaching support and (2) engaged in curriculum unit development sessions. BIL classrooms implement programs where primary language instruction (Spanish) is used to teach literacy and other content areas; teachers simultaneously provide Designated and Integrated English Language Development instruction for designated subject areas. SEI classrooms are defined as programs where ELs are instructed in English in all content areas, with the opportunity for teachers to use primary language support to develop or clarify content knowledge.

Research Design and Data Analysis

This study employed a mixed-methods approach to address the research question shown above. The use of the OPAL[©] tool (Appendix A and described in detail below) allowed for a standard measurement of instructional practices, including a quantitative analysis of instructional practice and qualitative description of what those practices looked like at the time of observations. Combined data sets from the BIL (n=25) and SEI (n=27) classroom observations were disaggregated according to the OPAL[©] Domains, and Domain mean scores were calculated. OPAL[©] scores were disaggregated for BIL and SEI classrooms and descriptive statistics calculated. Content analytic procedures were used to analyze OPAL qualitative data in order to generate themes and patterns across classrooms (Hutchinson, 2001)[2].

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[1] Lavadenz, M. & Armas, E. G. (2010, 2012). *The observation protocol for academic literacies: Conceptual framework and validation report.* Center for Equity for English Learners, Loyola Marymount University.

[2] Hutchinson, S. (2001). Education and grounded theory. In R. Sherman, & R. B. Webb. (Eds.), *Qualitative research in education: Focus and methods*. Routledge Falmer.

Instrument - OPAL© Classroom Observation Tool and Procedures

The Observation Protocol for Academic Literacies (OPAL©) is a validated classroom observation measure that consists of a standard framework allowing educators to make classroom observations on language and content area teaching based on four domains: (1) Rigorous and Relevant Curriculum, (2) Connections, (3) Comprehensibility, and (4) Interactions (see Figure 2). The OPAL© is aligned to California and National Teaching Standards and examines teacher practices and classroom interactions from sociocultural and language acquisition perspectives. Using the OPAL© as a tool to document research-based EL instructional practices, a team of observers visited SEAL classrooms for approximately 20–30 minutes in spring 2016. Observers participate in a three-day training to ensure the reliability of scores. Construct indicators are scored between a 1 (low) and 6 (high) to demonstrate the level of implementation. Observer anecdotes are recorded as evidence for scores. The OPAL© provides an opportunity to standardize EL-focused classroom implementation data, record levels of practice, and use anecdotal evidence to report on levels of practice. The full OPAL© tool is found in Section 3 - Appendix A. For illustrative OPAL© observation classroom snapshots and more information about the alignment of the OPAL© tool to the SEAL Depth of Implementation Tool, see SEAL Research and Evaluation Brief 6: Observed Changes in SEAL Classroom Practices.

Figure 2

OPAL© Domains, Definitions, and Description of Indicators

OPAL© Domains	Description of Indicators
1.0 Rigorous and Relevant Curriculum *A rigorous and relevant curriculum is cognitively complex, relevant, and challenging. It allows educators to value and capitalize on students' linguistic and cultural backgrounds.*	1.1 Emphasizes problem solving and critical thinking 1.2 Provides access to materials, technology, and resources 1.3 Establishes high expectations 1.4 Organizes curriculum and teaching 1.5 Provides access to content in primary language 1.6 Facilitates transfer of skills from primary language
2.0. Connections *Bridging connections with students' prior knowledge is the ability to link content to students' lives, histories, and realities in order to create change.*	2.1 Relates instructional concepts to students' realities 2.2 Helps students make connections 2.3 Makes learning relevant and meaningful
3.0 Comprehensibility *Comprehensibility is the attainment of maximum student understanding in order to provide access to content for all students.*	3.1 Scaffolds instruction 3.2 Amplifies student input 3.3 Explains key terms 3.4 Provides feedback and checks for comprehension 3.5 Uses informal assessments
4.0 Interactions *Interactions are varied participation structures that facilitate access to the curriculum through maximum engagement and leadership opportunities.*	4.1 Facilitates student autonomy 4.2 Modifies procedures to support learning 4.3 Communicates subject matter knowledge 4.4 Uses flexible groupings

Part Two: Quantitative Findings

Data analyses revealed that BIL classrooms scored an overall mean of 3.8 (n=25) with a standard deviation of 0.82 compared to the overall mean for the SEI classrooms of 3.2 (n=27) with a standard deviation of 0.65. The BIL classrooms received higher overall means in all of the domains in comparison to the overall mean scores of the SEI classrooms. Significantly, the BIL classrooms received the highest overall mean for the **Rigorous and Relevant Curriculum** domain with a mean of 4.0 (n=25) and a standard deviation of 0.88, compared to the SEI classrooms that received a mean of 2.8 (n=27) and a standard deviation of 0.66 — the domain with the lowest overall mean for this program type. For the SEI classrooms, their highest overall mean fell under the **Interactions** and **Comprehensibility** domains with an overall mean of 3.5 (n=27). In the same domains, the Bilingual/Dual Language classrooms received overall means of 3.9 (n=25) and 3.8 (n=25), respectively. Comparisons of overall means for BIL and SEI classrooms revealed statistical significance[3] in two instances: OPAL© Composite Mean Scores, $t(50) = 2.94$, $p = 0.005$, and OPAL© Rigorous and Relevant Curriculum Domain, $t(50) = 5.59$, $p < 0.0001$.

- Higher levels of implementation for BIL classrooms in all OPAL© domains
- Statistically significant difference between overall BIL vs. SEI classroom implementation
- Statistically significance difference between in the Rigorous and Relevant Curriculum domain between BIL vs. SEI classrooms

Table 1 provides descriptive statistics for each OPAL© Domain by program type. See Appendix D for descriptive statistics by program type for all 18 OPAL© indicators.

Table 1

Descriptive Statistics for OPAL© Domains by Program Type, Cohort 1

Domain	Bilingual/Dual Language Classrooms			Structured English Immersion Classrooms		
	N	*M*	*SD*	*N*	*M*	*SD*
Rigorous and Relevant Curriculum	25	4.0	0.88	27	2.8	0.66
Connections	25	3.4	0.87	27	3.1	0.70
Comprehensibility	25	3.8	0.93	27	3.5	0.71
Interactions	25	3.9	0.76	27	3.5	0.82
Overall OPAL© Composite Mean	25	3.8	0.82	27	3.2	0.65

Part Three: Qualitative Findings

The OPAL© tool allowed observers to capture anecdotal notes for all OPAL© domains and indicators. As part of the qualitative component of the mixed methods approach of the study, thematic analyses of the anecdotal notes collected by certified OPAL© observers were conducted in order to triangulate with the quantitative data. Qualitative data also provided insights about the evidence of teaching and learning practices across the 52 SEI and BIL classrooms. OPAL© anecdotal data were analyzed using inductive coding procedures[4] by three reviewers.

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[3] Unpaired t-test analyses were conducted to compare the overall means of the BIL and SEI classrooms by domain level and for overall OPAL© composite mean.
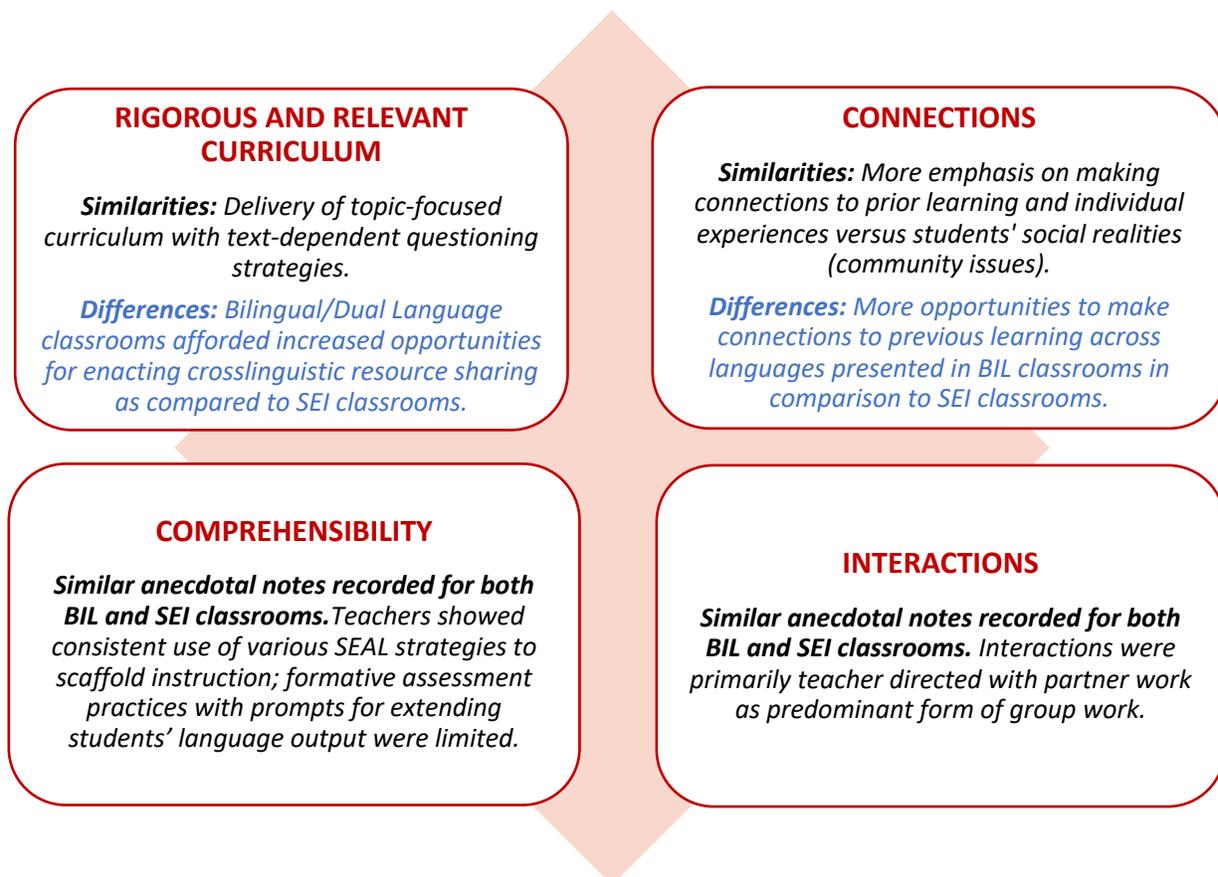
[4] Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation,* 27(2), 237-246. https://doi.org/10.1177/1098214005283748

Patterns emerged through the analysis of the coding of the raw data for key findings of teaching and learning practices. See Figure 3 for a summary of qualitative findings.

Figure 3
Observed Qualitative Differences in SEAL BIL versus SEI Classroom Practices

RIGOROUS AND RELEVANT CURRICULUM

Similarities: *Delivery of topic-focused curriculum with text-dependent questioning strategies.*

Differences: *Bilingual/Dual Language classrooms afforded increased opportunities for enacting crosslinguistic resource sharing as compared to SEI classrooms.*

CONNECTIONS

Similarities: *More emphasis on making connections to prior learning and individual experiences versus students' social realities (community issues).*

Differences: *More opportunities to make connections to previous learning across languages presented in BIL classrooms in comparison to SEI classrooms.*

COMPREHENSIBILITY

Similar anecdotal notes recorded for both BIL and SEI classrooms. *Teachers showed consistent use of various SEAL strategies to scaffold instruction; formative assessment practices with prompts for extending students' language output were limited.*

INTERACTIONS

Similar anecdotal notes recorded for both BIL and SEI classrooms. *Interactions were primarily teacher directed with partner work as predominant form of group work.*

Part Four: Summary of Findings and Implications

A comparison of the OPAL© observations by program type provided significant insights on levels of implementation of the SEAL model. Specifically, the observations revealed important patterns and trends about methods and strategies teachers in BIL and SEI programs use to support ELs. In particular, the observations provided insights into teachers' implementation of rigorous and relevant curriculum for linguistically diverse populations. Such insights include the connections teachers make to content that is meaningful and related to the students' communities, their use of effective strategies to help students understand the content, and their engagement and interaction with students to support learning.

General findings:

- Higher levels of implementation for BIL classrooms in all OPAL© domains
- Statistically significant differences between overall BIL and SEI classroom implementation, and the Rigorous and Relevant Curriculum domain
- Similarities between BIL and SEI Comprehensibility and Interactions classroom practices
- Greater evidence of implementation in the areas of Rigorous and Relevant Curriculum and Connections in BIL vs. SEI classrooms

Implications: Teacher Support and Professional Development

The following implications for teacher support and professional development are based on the qualitative and quantitative findings from this study:

- Create opportunities for SEI teachers to reflect on and incorporate cross-linguistic resources in the classroom and leverage the use of primary language resources
- Expand opportunities for SEI teachers to participate in professional development focused on helping students make connections between subject matter concepts and previous learning and students' life experiences and community
- Expand opportunities for both BIL and SEI teachers to extend student language and increase use of informal assessment to adjust instruction while teaching
- Expand professional development opportunities for both BIL and SEI teachers to incorporate varied classroom participation structures that maximize engagement and leadership opportunities so that instruction is not exclusively teacher lead