

## ***What an Administrator Needs to Know to Support SIOP Implementation***

**Deborah J. Short, Ph.D.**  
**Academic Language Research & Training**

### **Content Objectives**

- Explore the 8 components of the SIOP Model
- Review the research validating the SIOP Model

### **Language Objectives**

- Discuss aspects of academic English for second language learners
- Describe the administrator's role in schools with SIOP teachers of English language learners

### **Statistics About English Learners (ELs) and Struggling Readers**

- One-third of students entering ninth grade are reading two or more grades below level.
- A quarter and in some estimates almost a third of American high schoolers never graduate.
- Under NCLB, the number of high school ELs not receiving a diploma increased because they failed high stakes tests, despite fulfilling all other graduation requirements.
- ELs need 4-7 years to learn English before reaching average academic performance levels.
- We test ELs before they are proficient in English.
- Former ELs in NYC, NJ, CA and WA outperformed students as a whole on state tests, exit exams, and graduation rates.

### **Instructional Shifts in Common Core Standards**

- Shared Responsibility for Literacy Across Content Areas
- Emphasis on Academic Oral Language and Vocabulary
- More Informational Texts and Multiple Genres
- Increased Text Complexity and Text-Dependent Questions
- Calls for Argumentation and Text-Based Evidence
- Real-World Connections

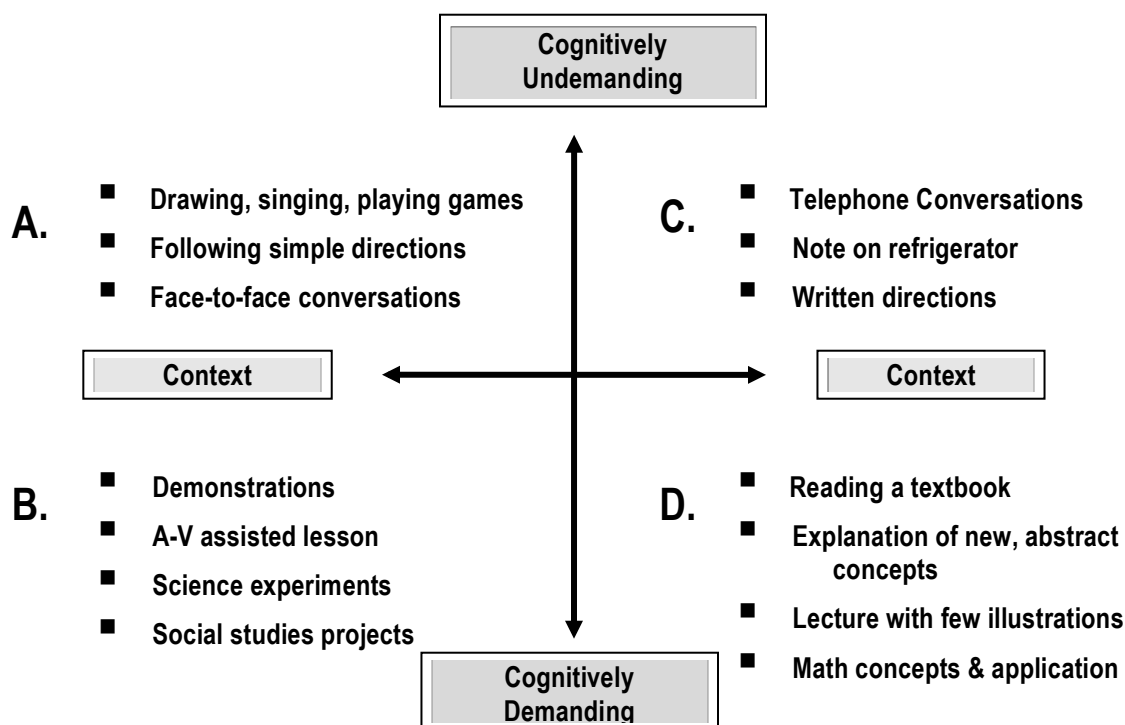
### **Academic Literacy**

- Includes reading, writing, and oral discourse for school purposes
- Varies from subject to subject
- Requires knowledge of multiple genres of text, purposes for text use, and text media
- Is influenced by students' literacies in contexts outside of school
- Is influenced by students' personal, social, and cultural experiences

### **Research Findings on Academic Literacy for English Learners**

- Native language literacy is not necessary for English literacy, but beneficial. Academic literacy in the native language facilitates the development of academic literacy in English.
- Teaching the five components of reading (NICHD, 2000) to ELs is necessary but not sufficient to develop academic literacy. ELs also need to develop oral language proficiency.
- Vocabulary development is a must.
- High quality instruction for English learners is similar to high quality instruction for other, English-speaking students, but ELs need instructional accommodations and supports.

## Cummins' (1981) Model of Academic Language



*We need to move lessons from the D quadrant to the B quadrant.*

## THE SIOP MODEL: SHELTERED INSTRUCTION FOR ENGLISH LEARNERS

In the SIOP Model, language and content objectives are systematically woven into the grade-level subject curriculum that teachers present to students through modified instruction in English. The Sheltered Instruction Observation Protocol (SIOP) operationalizes the model. The protocol is composed of 30 items grouped into 8 components. (Echevarria, Vogt, & Short, 2008)

**Lesson Preparation.** Each SIOP lesson has separate language and content objectives that are linked to the curriculum & standards and taught systematically. Content concepts suit the grade and developmental level of the students. SIOP lessons include meaningful activities that integrate concepts with language practice and supplemental materials to support the academic text.

**Building Background.** Effective SI teachers make connections between new concepts and past learning and between concepts and students' personal experiences. These connections help students organize new information as part of their cognitive processing. Furthermore, teachers must explicitly teach and emphasize the key academic vocabulary of the concepts and provide opportunities for ELLs to use this vocabulary in meaningful ways.

**Comprehensible Input.** Accomplished SI teachers modulate their rate of speech, word choice, and sentence structure complexity according to the proficiency level of ELLs. They make content comprehensible through content-ESL techniques. SI teachers also explain academic tasks clearly, both orally and in writing, providing models and examples wherever possible.

**Strategies.** Teachers and students need to use strategies in SIOP lessons. Teachers must scaffold instruction, beginning at a level that encourages student success and providing support to move the students to a higher level of understanding and accomplishment. Teachers highlight study skills and learning strategies for students and create tasks and ask higher-order questions that require students to use the strategies and talk about them.

**Interaction.** High quality SIOP classes provide frequent opportunities for interaction and discussion between teacher and students, and among students. It is through discussion with classmates and with the teacher that ELLs practice important skills like elaborating, negotiating meaning, clarifying and confirming information, persuading, disagreeing, and evaluating.

**Practice & Application.** Effective SIOP lessons include activities that encourage students to practice and apply the content they are learning, AND practice and apply the language skills they are learning too. These activities are most beneficial when they include visual, hands-on, and other kinesthetic tasks.

**Lesson Delivery.** Successful delivery of a SIOP lesson means that the content and language objectives were met, the pacing was appropriate, and the students had a high level of engagement throughout the class period. All students must have opportunities to practice their language skills within the context of the academic tasks.

**Review & Assessment.** ELLs need to review key vocabulary and concepts, and teachers need to assess how well students retain the information—through frequent feedback to students and informal assessments throughout the lesson. SIOP teachers should offer multiple pathways for students to demonstrate their understanding of the content.

## SIOP RESEARCH

### The Effects of Sheltered Instruction on the Achievement of Limited English Proficient Students (1996-2003)

- Original SIOP research study worked at middle school level. After 4 years of teacher-researcher collaboration, the project developed a model of effective sheltered instruction, operationalized in the SIOP (Echevarria, Vogt, & Short, 2013).
- After several years of field-testing the SIOP, a study was conducted to establish the validity and reliability of the instrument (Guarino, et al., 2001). Findings indicated the SIOP is a highly reliable and valid measure of sheltered instruction.
- 1998-99: Using a prompt for *expository* writing, ELLs in classes whose teachers had been trained in implementing the SIOP, outperformed and made greater overall gains than the comparison group (Echevarria, Short & Powers, 2006).

**Lela Alston Elementary School – Phoenix, AZ (2002 – 2005)**

- SIOP Training began in 2002-03, one component at a time throughout a two-year period.
- Teachers were observed and coached to ensure fidelity to the SIOP Model.
- Significant growth on state reading, mathematics and writing exams at Grade 3 after 3 years of SIOP implementation schoolwide. (Echevarria, Short & Vogt, 2008)
- In 2002, less than 50% of the 3<sup>rd</sup> graders performed at grade level. In 2005, 86% of third grade students who began in K at Alston were performing at or above grade level.

**Academic Literacy through Sheltered Instruction for Secondary ELLs – NJ (2004-06)**

- Comparable NJ districts, each with one high and two middle schools with ESL programs
- Professional development program - summer institutes and follow-up workshops during the school year. On-site coaching from district part-time coaches.
- After 1 year of training at the SIOP site, 56% of Cohort 1 and 74% of Cohort 2 implemented the SIOP Model to a high degree. After 2 years, 71% of Cohort 1 reached a high level. At the comparison site, only 5% of the teachers reached a high level after 1 year and 17% after 2 years.
- On average, within Treatment district, SIOP students outperformed nonSIOP students to a statistically significant level ( $p < .05$ ) in both years when comparing mean scores on the IPT oral, reading, writing, and total tests.
- On average, Treatment SIOP students outperformed Comparison students to a statistically significant level ( $p < .05$ ) when comparing mean scores on the IPT oral, writing, and total tests in the second year of the intervention.

**The Impact of the SIOP Model on Middle School Science & Language Learning (2005–12)****Study 1 – West Coast School District - CA**

- Experimental design with 8 Middle Schools – 1000 students in 7th grade science classes
- SIOP teachers were provided SIOP training, SIOP science units, and coaching
- Students were administered pre and post assessments
- For 3 of 4 measures students in SIOP group significantly outperformed students in comparison group
- Students with teachers who implemented the SIOP Model to high levels performed better than students with teachers who implemented the model weakly

**Study 2 – Southern School District**

- Experimental design with 8 Middle Schools – in 7<sup>th</sup> grade science, social studies, English language arts, and math classes (Year 1), in 4 Middle Schools (Year 2)
- Combined program of SIOP professional development and coaching with other science and social studies curriculum interventions plus Word Generation for ELA classes
- Students in SIOP - Curriculum groups outperformed Control students on vocabulary, science and social studies measures

## THE SIOP MODEL CHECKLIST

### *Lesson Preparation*

- \_\_\_ 1. **Content objectives** clearly defined, displayed and reviewed with students
- \_\_\_ 2. **Language objectives** clearly defined, displayed and reviewed with students
- \_\_\_ 3. **Content concepts** appropriate for age and educational background level of students
- \_\_\_ 4. **Supplementary materials** used to a high degree, making the lesson clear and meaningful (e.g., computer programs, graphs, models, visuals)
- \_\_\_ 5. **Adaptation of content** (e.g., text, assignment) to all levels of student proficiency
- \_\_\_ 6. **Meaningful activities** that integrate lesson concepts (e.g., interviews, letter writing, simulations, models) with language practice opportunities for reading, writing, listening, and/or speaking

### *Building Background*

- \_\_\_ 7. **Concepts explicitly linked to students' background** experiences
- \_\_\_ 8. **Links explicitly made** between **past learning and new concepts**
- \_\_\_ 9. **Key vocabulary emphasized** (e.g., introduced, written, repeated, and highlighted for students to see)

### *Comprehensible Input*

- \_\_\_ 10. **Speech appropriate** for students' proficiency levels (e.g., slower rate, enunciation, and simple sentence structure for beginners)
- \_\_\_ 11. **Clear explanation** of academic tasks
- \_\_\_ 12. **A variety of techniques** used to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)

### *Strategies*

- \_\_\_ 13. Ample opportunities provided for students to use **learning strategies**
- \_\_\_ 14. **Scaffolding techniques** consistently used, assisting and supporting student understanding
- \_\_\_ 15. A variety of **questions or tasks that promote higher-order thinking skills** (e.g., literal, analytical, and interpretive questions)

### *Interaction*

- \_\_\_ 16. Frequent opportunities for **interaction** and discussion between teacher / student and among students, which encourage **elaborated responses** about lesson concepts
- \_\_\_ 17. **Grouping configurations** support language and content objectives of the lesson
- \_\_\_ 18. Sufficient **wait time for student responses** consistently provided
- \_\_\_ 19. Ample opportunities for students to **clarify key concepts in L1** as needed with aide, peer, or L1 text

### *Practice & Application*

- \_\_\_ 20. **Hands-on materials and / or manipulatives** provided for students to practice using new content knowledge
- \_\_\_ 21. Activities provided for students to **apply content and language knowledge** in the classroom
- \_\_\_ 22. Activities integrate **all language skills** (i.e., reading, writing, listening, and speaking)

### *Lesson Delivery*

- \_\_\_ 23. **Content objectives** clearly supported by lesson delivery
- \_\_\_ 24. **Language objectives** clearly supported by lesson delivery
- \_\_\_ 25. **Students engaged** approximately 90% to 100% of the period
- \_\_\_ 26. **Pacing** of the lesson appropriate to students' ability levels

### *Review & Assessment*

- \_\_\_ 27. Comprehensive **review of key vocabulary**
- \_\_\_ 28. Comprehensive **review of key content concepts**
- \_\_\_ 29. Regular **feedback** provided to students on their output (e.g., language, content, work)
- \_\_\_ 30. **Assessment of student comprehension and learning** of all lesson objectives (e.g., spot checking, group response) throughout the lesson

## SIOP INSTRUCTION IN ACTION

Watch the video clips. What do you see that is a Plus for English learners? What might be a Minus or Challenge for them? What strikes you as Interesting?

Plus	Minus	Interesting

## Sample Content and Language Objectives

**Common Core State Standard (Writing):** Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

### English Language Arts

- Content Objective: Students will edit a peer's rough draft to identify overused or vague words.
- Language Objective: Peers (writer and editor) will discuss the selected words to generate and evaluate alternatives with more precision, description, or sensory detail.

**Common Core State Standard (Reading):** Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.

### History

- Content Objective: Students will analyze letters to the editor to determine how persuasion can be used to move others to action.
- Language Objective: Students will write a letter to the editor stating their opinions about the actions of either the American colonists or the British loyalists in the weeks leading up to Revolutionary War.

### Sample Language Objective Frames

Students will   (function: active verb phrase)   using/with   (language target)  .

Students will [use]   (language target)   to   (function: active verb phrase)  .

Students will   (language target as active verb)   [with (e.g., part of speech)] .

**Language Targets may be academic vocabulary, language functions, language skills, language structures, grammar, or language learning strategies**

### *Examples:*

Students will ***explain*** their experiment using **if-then statements**.

Students will use **synonyms** to ***improve their writing***.

Students will ***write a letter to the editor*** with **prepositional phrases of time**.

Students will ***revise*** a paragraph using **correct verb agreement and sequence words**.

Students will use **appropriate question structure** to ***formulate pre-reading questions***.

Students will ***report*** a group consensus using **language frames** like: We decided \_\_\_\_\_. Our conclusion is \_\_\_\_\_.

## HOW ADMINISTRATORS FACILITATE AND SUPPORT SIOP MODEL IMPLEMENTATION

Opportunities for Implementation	Challenges For Implementation

- Learn what an effective sheltered lesson, content-based ESL lesson, or academic content lesson in L1 looks like to better observe, evaluate and provide feedback to teachers.
- Promote high quality sheltered instruction among all teachers.
- Use the SIOP checklist as a tool when observing new and veteran teachers and as the structure for post-observation discussions.
- Ask about SIOP implementation, look for evidence, such as posted language and content objectives.
- Plan for ongoing PD to sustain implementation (follow up workshops, Q & A sessions, mini-conferences, etc.).
- Support the development of SIOP teacher teams, promote peer observations and joint planning time.
- Create a school climate where all staff have high expectations for English language learners and accept responsibility for their academic achievement.
- Encourage all teachers to have training in ESL methods, sheltered instruction, and second language acquisition theory.
- Monitor teachers for the development of language and content knowledge among ESL/second language learners.
- Reduce or eliminate competing initiatives. Ensure staff members have the big picture of initiatives and the ones that remain are complementary.
- Involve guidance counselors in the SIOP network and foster appropriate scheduling so, to the extent, possible beginner and intermediate ELLs have SIOP-trained teachers.
- Encourage having coaches or mentors in the classroom to support implementation of the intervention (without fear of evaluation ramifications), and set aside time for pre- and post-conferencing. Consider establishing peer mentors, teaching teams within or across departments, or expert-novice mentors.
- Offer supportive and specific feedback.

## **SIOP TEACHERS OVER TIME WITH SUPPORT**

### **What should a Year 1 SIOP teacher look like?**

- Elementary: one subject area at a time (perhaps one subject area for the entire year)
- Secondary: one period at a time (perhaps one period for the entire year)
- Teachers learn and practice one component per month; SIOP observations should focus primarily on that month's component (observers can be administrators, fellow SIOP teachers, videotaping with conferencing, etc.).
- Cumulative growth expected in implementation of SIOP components.
- Lesson plans for the one subject/period should be detailed (and they're time-consuming).
- By end of year, there should be evidence of all eight components/thirty features for the one subject area or one period/day.
- Kudos if there's evidence of SIOP implementation across subject areas and/or periods.

### **What should a Year 2 SIOP teacher look like?**

- There should be considerable evidence of SIOP features in each lesson every day.
- Keep in mind: implementing the SIOP Model is more about refining teaching practices than it is about changing teaching practices.
- "Perfection" isn't the goal; making continuing progress is.
- Lesson planning should be much easier now; "bookmarks" used as quick reminders
- Accountability and fidelity to the SIOP Model is critical in year 2; periodic observations are essential, including videotaping for conference/discussion.
- Kudos for keeping up the energy and working to improve.

### **What should a Year 3 SIOP teacher look like?**

- Don't just watch the teacher; also watch the students. How do they look different from students in Years 1 and 2 SIOP classrooms?
- The teacher exhibits the attitude that "SIOP is the way I teach, all day, in all subjects and periods."
- Teachers don't "turn on and turn off" SIOP, either for subject areas (elementary), or periods (secondary).
- These teachers are your best advocates, if they're supported and validated for their expert teaching (if they're high-implementing).

### SIOP MODEL RESOURCES

- Echevarria, J., Richards-Tutor, C., Canges, R., & Francis, D. (2011). Using the SIOP Model to promote the acquisition of language and science concepts with English learners. *Bilingual Research Journal*, 34 (3), 334-351.
- Echevarria, J., Richards-Tutor, C., Chinn, V., & Ratleff, P. (2011). Did they get it? The role of fidelity in teaching English learners. *Journal of Adolescent and Adult Literacy*, 54 (6) 425-434.
- Echevarria, J., Short, D., & Powers, K. (2006). School reform and standards-based education. How do teachers help English language learners? *Journal of Educational Research*, 99 (4), 195-210.
- Echevarria, J., Short, D. & Peterson, C. (2012). *Using the SIOP Model with Pre-K and Kindergarten English Learners*. Boston: Allyn & Bacon.
- Echevarria, J., Short, D., & Vogt, M.E. (2008). *Implementing the SIOP model through effective professional development and coaching*. Boston, MA: Pearson/Allyn & Bacon.
- Echevarria, J., Vogt, M.E., & Short, D. (2013). *Making content comprehensible to English learners: The SIOP model*. 4th ed. Boston: Pearson/Allyn & Bacon.
- Echevarria, J., Vogt, M.E., & Short, D. (2010). *The SIOP model for teaching mathematics to English learners*. Boston: Pearson Allyn & Bacon.
- Guarino, A. J., Echevarria, J., Short, D., Schick, J.E., Forbes, S., & Rueda, R. (2001). The sheltered instruction observation protocol: Reliability and validity assessment. *Journal of Research in Education*, 11(1), 138-140.
- Himmel, J., Short, D. J., Richards, C., & Echevarria, J. (2009). *Using the SIOP Model to improve middle school science instruction* (CREATE Brief). Washington, DC: Center for Research on the Educational Achievement and Teaching of English Language Learners/CAL. [www.cal.org/create]
- Short, D. (2013). Training and sustaining effective teachers of sheltered instruction. *Theory Into Practice*, 52(2), 118-127.
- Short, D. (2000). What principals should know about sheltered instruction for English language learners. *NASSP Bulletin*, 84 (619).
- Short, D., & Echevarria, J. (2016). *Developing academic language with the SIOP model*. Boston: Pearson Allyn & Bacon.
- Short, D., Cloud, N., Morris, P., & Motta, J. (2012). Cross-district collaboration: Curriculum and professional development. *TESOL Journal*, 3(3), 402-424.
- Short, D., Echevarria, J., & Richards-Tutor, C. (2011). Research on academic literacy development in sheltered instruction classrooms. *Language Teaching Research*, 15(3), 363-380.
- Short, D., Echevarria, J. & Vogt, M. (2008). *The SIOP® model for administrators*. Boston: Pearson Allyn & Bacon.
- Short, D., Fidelman, C., & Louguit, M. (2012). Developing academic language in English language learners through sheltered instruction. *TESOL Quarterly*, 46(2), 333-360.
- Short, D. & Fitzsimmons, S. (2007). *Double the work: Challenges and solutions to acquiring language and academic literacy for adolescent ELLs*. Report to Carnegie Corporation of NY. Washington, DC: Alliance for Excellent Education. (<http://www.all4ed.org/publications/DoubleWork/index.html>)
- Short, D., Vogt, M.E., & Echevarria, J. (2011). *The SIOP model for teaching science to English learners*. Boston: Pearson Allyn & Bacon.
- Short, D., Vogt, M.E., & Echevarria, J. (2011). *The SIOP model for teaching history-social studies to English learners*. Boston: Pearson Allyn & Bacon.
- Vogt, M.E., & Echevarria, J. (2008). *99 ideas and activities for teaching English learners with the SIOP® model*. Boston: Pearson Allyn & Bacon.
- Vogt, M.E., Echevarria, J., & Short, D. (2010). *The SIOP model for teaching English-language arts to English learners*. Boston: Pearson Allyn & Bacon.