

## What in the World is SIOP®?

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### Research Findings on the SIOP® (Sheltered Instruction Observation Protocol) Model

#### **CREDE Research: The Effects of Sheltered Instruction on the Achievement of LEP Students**

##### **Key Findings**

1. After several years of field-testing the SIOP, a **validity and reliability study of the instrument** was conducted. Findings showed the SIOP Model is a highly reliable and valid measure of sheltered instruction (Guarino, et al., 2001).
2. 1998-99: Using a prompt for **expository writing**, English learners in classes with SIOP-trained teachers outperformed and made greater overall gains than English learners in classes with non-SIOP-trained sheltered teachers on a version of the IMAGE writing test (Echevarria, Short & Powers, 2006). (IMAGE exam: Illinois Measure of Annual Growth in English)

#### **CREATE Research: The Impact of the SIOP® Model on Middle School Science and Language Learning**

##### **Key Findings** (Echevarria, Richards-Tutor, Changes, & Francis, 2011)

- ▶ For all total scores of the tests the SIOP group outperformed the control.
- ▶ Analyses of the data indicated statistically significant difference on essays.
- ▶ The statistical difference on multi-choice questions was approaching significance for the SIOP group

#### **CREATE Research: The Impact of the SIOP® Model on Middle School Science and Language Learning**

##### **Key Findings** (Echevarria, Richards-Tutor, Chin & Rattleff, 2011)

- The higher the teacher rating on the SIOP protocol, the better the students performed.
- This was true for all subgroups: English Learners, Former English Learners, English Speakers, and students with disabilities.
- This is true of both SIOP and control teachers.

#### **NJ SIOP® Study: Academic Literacy Through Sheltered Instruction for Secondary English Learners**

##### **Key Findings** (Short, Fidelman & Louguit, 2012)

1. Teachers can reach high levels of SIOP implementation after 1-2 years (1 year with more support). Sustained, supported professional development (workshops + coaching) works.
2. After 1 year, students with SIOP-trained teachers outperformed non-SIOP students *within* the treatment district on mean scores for oral, reading, writing ESL tests and for total score to statistically significant levels. Same results for Year 2.
3. After 2 years, students with SIOP-trained teachers in the treatment group outperformed non-SIOP students in comparison district, on mean scores for oral, written, and total ESL to statistically significant levels.

### Who Uses SIOP®?

Anyone who works with English learners, including:

- ✓ ESL, ELD, dual language, and bilingual teachers
- ✓ Elementary and secondary teachers
- ✓ Classroom support personnel, including reading specialists, special educators, and paraprofessionals
- ✓ Site and district administrators
- ✓ Higher Education:
  - Preservice candidates preparing to be teachers of English learners
  - Graduate students preparing to be coaches, specialists, coordinators, administrators

## SIOP® Components and Features

### Lesson Preparation

SIOP® teachers...

1. Write, post, and orally share content objectives (or goals, targets) for each lesson
2. Write, post, and orally share language objectives (or goals, targets) for each lesson
3. Plan lessons that are appropriate for age and educational levels of students
4. Include a variety of supplemental materials
5. Adapt content and materials, as needed, and
6. Include activities that are meaningful, providing practice and application of content and language concepts

**Questions to Guide Development of Language Objectives:** What academic language do students need to know to meet content objectives? How can I move students' academic language knowledge forward in this lesson? What academic language do I want to see (writing) and hear (speaking) students use during this lesson?

### Building Background

SIOP® teachers...

7. Explicitly link lesson concepts to students' backgrounds and experiences.
8. Explicitly link lesson concepts to students' past learning.
9. Introduce, write, review, and highlight key vocabulary.

#### **Vocabulary:**

- ✓ Ask yourself: *"What academic vocabulary do I want to hear and see my students use during this lesson?"*
- ✓ 4-Corners Vocabulary: 4 quadrants: picture (upper left); definition (lower left); sentence, including the word (upper right); the word (lower right)

### Comprehensible Input

SIOP® teachers...

10. Use speech appropriate for students' proficiency levels
11. Provide clear explanations of academic tasks
12. Use a variety of techniques to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)

**Examples of Techniques for Increasing Comprehensibility:** Use gestures and body language; Speak slowly and clearly; Paraphrase challenging phrases or sentences; Give students multiple opportunities to see/hear words; Stress high-frequency vocabulary; Maintain a warm, supportive affect; Use visuals — videos, realia, graphic organizers, pictures; Check texts, in-class assignments, and homework for comprehensibility; Provide written procedures and directions with graphics, such as illustrations, pictures.

### Strategies

SIOP® teachers...

13. Provide students with ample opportunities to use learning strategies.
14. Use scaffolding techniques consistently, assisting and supporting student understanding
15. Ask questions and assign tasks that promote higher-order thinking skills

#### **Examples of Strategies We Can Teach:**

Cognitive: Rereading; Highlighting; Reading aloud; Taking notes; Mapping information; Finding key vocabulary; Mnemonics

Metacognitive: Predicting/Inferring; Self-Questioning; Monitoring & Clarifying; Evaluating; Summarizing; Visualizing

Language Learning: Applying reading skills (e.g., previewing, skimming, reviewing); Applying reading skills (e.g., previewing, skimming, reviewing); Analyzing patterns in English (e.g., *prefix + root + suffix*); Making logical guesses about words; Substituting known words for unknown

## **Interaction**

SIOP® teachers...

16. Provide frequent opportunities for interaction and discussion: teacher-to-student; student-to-student
17. Plan for grouping configurations that support language and content objectives
18. Consistently provide sufficient wait time for student responses
19. Provide ample opportunities to clarify key concepts in L1, as needed

### **Elicit Elaborated Responses:**

- Tell me more about that.
- What do you mean by . . . ?
- What else . . . ?
- Why is that important?
- What does that remind you of?
- In other words (paraphrase). . . Is that accurate?
- What made you think of that?
- Where did you get that idea?
- Can you explain it with more examples/details?
- Is there more you can tell me about that?

## **Practice & Application**

SIOP® teachers...

20. Provide hands-on materials and/or manipulatives for students to use for application and practice
21. Provide activities for students to apply content and language knowledge
22. Provide activities that integrate reading, writing, listening, and speaking

## **Lesson Delivery**

SIOP® teachers...

23. Ensure that content objectives are supported by lesson delivery
24. Ensure that language objectives are supported by lesson delivery
25. Engage students approximately 90-100% of the instructional period
26. Provide appropriate pacing throughout the lesson

### **Factors Contributing to High Levels of Student Engagement**

Well-planned lessons; Clear explanations of academic tasks or instruction; Appropriate amount of time spent on academic tasks; Strong classroom management skills; Opportunities for students to apply learning in a meaningful way; Active student involvement; Lesson design meets the language and learning needs of students

## **Review & Assessment**

SIOP® teachers...

27. Provide a comprehensive review of key vocabulary
28. Provide comprehensive review of key concepts
29. Provide regular, specific, academic feedback
30. Assess student learning of all lesson objectives throughout the lesson

## Where Do We Go from Here?

- Give yourself 2-3 years to become a high-implementing teacher;
  - ✓ 1 = work on one component at a time, adding components cumulatively;
  - ✓ 1 = time period for each component (one month or one 9-week quarter);
  - ✓ 1 = subject area (elementary) or period (secondary); add other subject areas or periods as your confidence with SIOP grows;
  - ✓ Read the book...twice!
  - ✓ Work collaboratively (e.g., decide on component to begin with; critical friends for observations/co-planning, etc.)
  - ✓ Put a plan together about how SIOP implementation will roll out in your school/district (Pearson can help with this!);
  - ✓ Be kind to yourself! Remember, it's about refining your teaching practices, not learning a whole new way to teach.

## Selected References

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