

SIOP® 8 Components and 30 features

Adapted from *Making Content Comprehensible for English Language Learners, The SIOP Model* by Jana Echevarria, Mary Ellen Vogt and Deborah J. Short.

The Eight Components of Sheltered Instruction:

The Sheltered Instruction Observation Protocol (SIOP) was developed to make content material more comprehensible to English Language Learners. The model was developed by Jana Echevarria, Mary Ellen Vogt and Deborah J. Short.

The SIOP Model includes the following eight components:

1. Lesson Preparation	5. Interaction
2. Building Background	6. Practice and Application
3. Comprehensible Input	7. Lesson Delivery
4. Strategies	8. Review and Assessment

1. Lesson Preparation:

Planning must produce lessons that enable students to make connections between their own knowledge and experiences and the new information being taught. Well-planned lessons include content area objectives as well as language objectives. Concepts must be appropriate for the age and educational level of the student. The teacher and students should use supplementary materials such as charts, graphs, pictures, illustrations, multimedia and manipulatives, as well as demonstrations. Graphic organizers, such as outlines and labeling, should also be used, in addition to study guides, marginal notes, adapted text, and highlighted text.

Content Objectives and Language Objectives

Clearly define content and language objectives —

- Write on the board- use friendly written language
- State orally

Content objectives describe *what* the students will learn during the lesson.

Language objectives describe *how* the students will learn the content of the lesson. They are based on your students needs. They demonstrate how the students are going to learn the content. They determine which of the 4 domains of language (listening, speaking, reading, writing) students will use to accomplish the objectives.

(Explained more thoroughly in 7—Lesson Delivery)

Language Skills Associated with Content Lessons

Listening	Speaking	Reading	Writing
draw a picture	name	preview and predict	create complete sentences
role play	discuss	find specific information	summarize
answer questions	explain	read fluently	list
listen and retell	ask and answer questions	identify main idea	compare
follow directions	summarize	determine fact vs. opinion	explain
demonstrate	evaluate	scan	create a poem
distinguish between	clarify	identify vocabulary	write questions and/or answers
record	justify	infer	diagram

Adaptation of the Content

Make texts available to students and simplify without “watering down” the material. Choose content concepts for age appropriateness as well as educational background level of students.

Graphic Organizers

Use graphic organizers to assist students in grasping the “wholeness and parts” of a concept. Graphic organizers are also used to improve mathematics reading comprehension, verbal communication, writing and story problem solving skills. Use to supplement written or spoken words before, during and after the lesson.

- Before lesson—guides and supplements the building of background for difficult text or challenging mathematical concepts and helps organize mathematical thinking.
- During lesson—focuses students’ attention and makes connections to prior knowledge.
- After lesson—to assist in recording personal understandings and responses and to double-check mathematics problem solving sequence and understanding.

Examples of graphic organizers for mathematics:

- Venn Diagrams
- Timelines
- Concept Maps
- Comparison Charts
- Discussion Webs

Outlines

Use teacher-prepared outlines to guide students in taking notes in an organized manner.

- T-charts can be useful for organizing and outlining information.
- For those who need visual support, display a completed outline first until it becomes a familiar and routine format for organizing information.

Highlighted Text

For newcomers, highlight key concepts, important vocabulary, and summary statements in student's text. Student reads only highlighted sections.

Marginal Notes

Teacher makes notes in the margin of the newcomer's text assisting in focusing attention on important concepts or ideas, key words, and definitions. It can also draw attention to important supporting facts for "why?" or "how?"

Tip: Use sticky notes rather than actually writing in textbooks.

Adapted Text

Sometimes it is necessary to rewrite dense text in order to make it easier to comprehend. Short, simple sentences are easier for newcomers. The format should include a topic sentence followed by several sentences with supporting details. All sentences need to be relevant to the context. Maintaining a consistent format affords easier reading and more connections to prior knowledge.

Jigsaw

One or two members of each cooperative team are chosen by the teacher to be responsible for one section of an assignment. A separate team is formed for

each of the identified sections. Text sections are read aloud within the team and then discussed and reviewed to determine essential information and key vocabulary, and to create a better collective understanding of the concept. When clear understanding is reached, “expert team” members return to their original cooperative teams to teach their teammates, demonstrating peer-modeling. English language learners benefit from this system because they are learning from others while not burdened with reading the longer text individually.

Leveled Study Guides

Teacher composes study guides to accompany students’ textbook.

Study guide may include:

- summary of text,
- questions, and/or
- statements of learning

Teacher can designate questions for different proficiency levels by marking as * (easiest), ** (moderately challenging), or *** (most challenging).

Cornell Notes

Developed by Walter Pauk of Cornell University, Cornell Notes are used to provide a permanent record of learning. Students are taught how to take notes by using abbreviations, pictures, and diagrams; how to write down key questions; and how to summarize notes in a final paragraph.

For more information on using Cornell Notes contact the AVID Program at www.avidonline.org

Supplementary Materials

Use supplementary materials to provide students with concrete experiences, visual support, and scaffolding of learning.

- Hands-on manipulatives
- Pictures, photos, visuals
- Multimedia
- Demonstrations

2. Building Background

Concepts must be directly related to the students' background experiences, when possible, whether personal, cultural, or academic. Teachers must make explicit and direct links between past learning and new concepts. Emphasize key vocabulary, and present new vocabulary only in context. Studies have shown that there is a strong correlation between vocabulary knowledge and student achievement. It is therefore necessary to explicitly teach academic language and academic content vocabulary.

Contextualize Key Vocabulary

- Review the content—select key vocabulary terms that are critical to understanding the concept being taught.
- Introduce and define terms simply and concretely.
- Demonstrate how terms are used in context, and explain through the use of synonyms or cognates to clarify meaning.

Vocabulary Self-Selection

Students self-select vocabulary words that they think are essential to understanding the concept. This empowers students by allowing them to choose the most appropriate vocabulary words and key concepts.

Personal Dictionaries or Glossaries

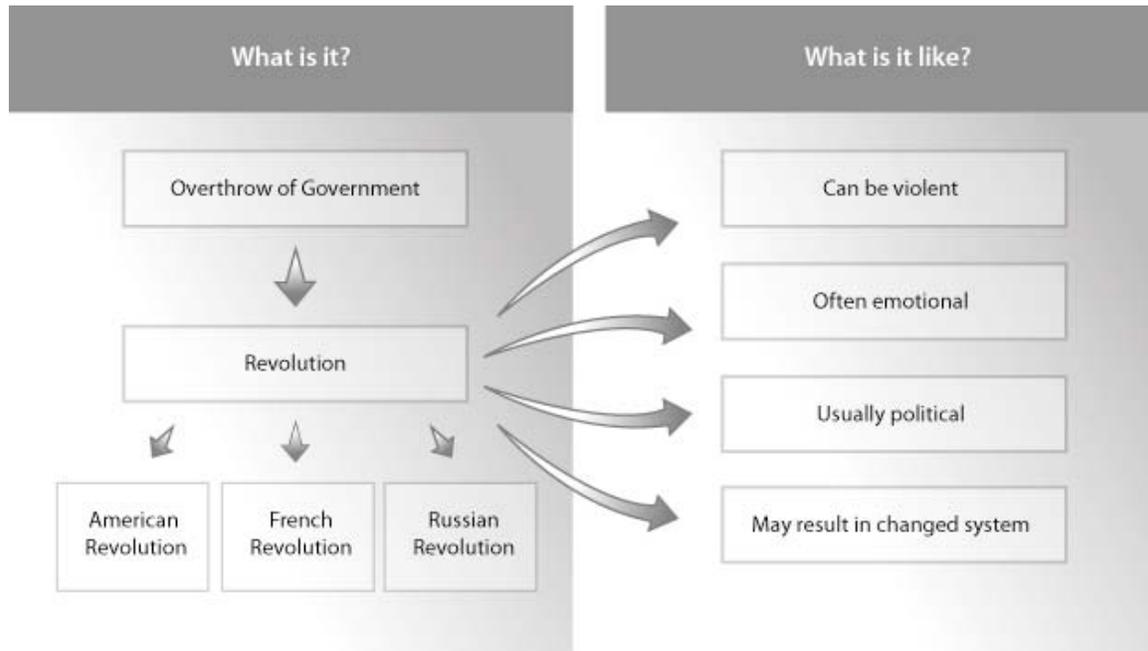
- Personal dictionaries or glossaries are created as an individual vocabulary and spelling resource.
- In mathematics, dictionaries or glossaries could be arranged around key concepts.

Content Word Wall

- With student involvement, create a word wall specific to mathematics content for students to refer to as a resource.
- Display alphabetically or by concept.

Concept Definition Map

A graphic organizer used to discuss complex concepts and clarify meaning.



Math Vocabulary Games

- Use the cloze technique to teach and review content vocabulary in context.
 - Choose a sentence that has a strong contextual support for the focus word.
 - Have students brainstorm possible replacement words.
 - Teacher assists students in choosing correct word.
- Word sorts are used to categorize previously introduced vocabulary according to meaning, structure, word endings, or sounds. This reinforces word relationships, spelling, and word structure.
- Visual vocabulary can be used to form pictures or graphic representations of words and concepts.
- Vocabulary through music can help students remember concepts and patterns.
- Word generation games help students relate a new word to one previously learned through analogy. Students brainstorm words that contain a chunk of a word.

3. Comprehensible Input

Teachers must use speech that is appropriate to the students' language proficiency level. The teacher should speak slowly, enunciate clearly, repeat more frequently, and adjust speech as needed. The teacher should avoid jargon and idioms and use body language, gestures, and pictures to accompany spoken words. The explanation of a task should be made clear in a step-by-step manner using visuals. Teachers should use a variety of techniques to make concepts clear, including paraphrasing and repetition.

Appropriate Speech

- Use speech appropriate to students' language proficiency level.
- Avoid jargon and idiomatic expressions.
- Use body language, gestures, and pictures to accompany spoken words.

Explanation of Academic Tasks

- Present and explain instructions in a sequential step-by-step manner, demonstrating when needed, and using visuals.
- Allow students to explain instructions to the group.
- Paraphrase and repeat when necessary.

Scaffolding

- Verbal Scaffolding—restating a student response to model correct English usage and grammar.
 - Model critical thinking by using “Think Aloud” strategies.
 - Reinforce contextual definitions by restating a term and giving its context or definition.
- Procedural scaffolding—building a student's independent knowledge of concepts and language to move a student from explicit teaching – to modeling – to practicing – to application.
 - Such practices should include grouping of students to build skills and increase independence.

Questioning

- Use a variety of question types.
- Ask open-ended questions that require true communication from and between students.

Interaction

- Allow student discussion and interaction to provide peer support and opportunities to practice language.
- Vary student groupings day-to-day and even within a lesson (partners, teams, triads).

Wait Time

Many English language learners need more time to formulate answers and should be given ample wait time (up to 20 seconds).

Clarifying Key Concepts in First Language

English language learners need to be allowed to confer in their primary language about subject matter and their own thinking—with each other or with the teacher.

Application of Content and Language Knowledge

“Discussing and doing” make abstract concepts more concrete to students and allow students to practice English in a safe environment.

Integration of Language Skills with Mathematics

Reading, writing, speaking, and listening are mutually supportive and need to be integrated into content areas.

Review of Key Vocabulary

- Multiple exposures to new terminology builds proficiency
- Paraphrase when needed.
- Use multiple modalities to remember words.

4. Strategies

Strategies include techniques, methods, and mental processes that enhance comprehension for learning and retaining information. Learning strategies include meta-cognitive, cognitive, and social/affective strategies. Students should be provided ample opportunities to use learning strategies, which have been taught through explicit instruction. Teachers should consistently use scaffolding

throughout a lesson and decrease support as students acquire experience. The goal is for students to become more independent in self-monitoring their own learning strategies. Common strategies include thinking aloud, preview and prediction, prompting, elaboration, and questioning that promotes higher order thinking skills.

Sheltered Instruction strategies include the following:

Thinking Aloud

The teacher models thinking through concepts and problems by verbalizing his or her explicit thinking with students.

Creating an “I Wonder” Chart

- Brainstorm about the book, topic, or material.
- Create a chart with who, what, when, where, and why—“I wonder” questions.

Previewing and Predicting Strategy

- Students individually preview learning material looking at illustrations, pictures, and bold print.
- With a partner, students write three (3) things they think they will learn from the material.
- Partners share their list with another pair of students and the list is condensed or expanded.
- Transfer final list to chart paper.
- Four-person teams share lists with whole group
- Teacher then reads first section of material or text (one page or less) while students follow along.

Summarizing Strategy

- After reading a section of text or other reading material, teacher and students underline or pick out 10 words or concepts that are most important in understanding the text.
- Write the 10 words or concepts on chart paper or chalkboard.
- Teacher and students write one to two summary statements, using as many of the listed words or concepts as possible.

Relating Summarizing Statements Back to Predictions and “I Wonder” Chart

- Read each statement aloud.

- Confirm whether it is true or false depending on the reading selection.
- Erase or cross out statements that are not likely to relate to the rest of the reading selection and add new predictions.
- Write down answers to questions from “I Wonder” Chart if they were found in reading material.

Prompting, Questioning and Elaborating

Prompt higher order thinking skills by questioning and asking students to elaborate on new learning. Extend new learning by using these:

- Graphic organizers
- Illustrations of new learning
- A gallery walk to respond to question or topic

5. Interaction

English language learners benefit from opportunities to use English in multiple settings across content areas. Learning is certainly more effective when students have an opportunity to participate fully, actively discussing ideas and information. Instead of teachers talking and students listening, sheltered content classes should be conducted in a way that allows students to interact in their collaborative exploration of the content. Through meaningful interaction, students can practice speaking and making themselves understood by asking and answering questions, negotiating meaning, clarifying ideas, and other techniques. Important teacher strategies used to promote interaction include a variety of grouping options which support language and content objectives, ample wait time for responses, and opportunities for clarification in the student’s native language when possible.

Opportunities for Interaction

- Effective teachers strive to provide a more balanced linguistic exchange between themselves and their students—ELL students need the practice in speaking!
- Interaction accesses the thought processes of another and solidifies one’s own thinking.
- Talking with others, either in pairs or small groups, allow for oral rehearsal of learning.

Encouraging More Elaborate Responses

It is important to encourage students to elaborate on their verbal responses and challenge them to go beyond “yes” and “no” answers:

- “Tell me more about that.”
- “What do you mean by. . .?”
- “What else. . .?”
- “How do you know?”
- “Why is that important?”
- “What does that remind you of?”
- The teacher can also model and clarify by restating the student’s answer:
- “In other words. . . Is that accurate?”
- It is also important to allow wait time for students to formulate answers. If necessary, the teacher can also call on another student to extend his or her classmate’s response:
- “That’s correct. Can someone else tell me more about. . . ?”

Fostering Student Interaction

Provide interactive activities that allow interaction with varied student groupings.

Grouping Configurations

All students, including English language learners, benefit from instruction that frequently includes a variety of grouping configurations. It is recommended that **at least 2 different grouping structures be used during a lesson.**

Variety:

- Whole class
 - To develop classroom community
 - To provide a shared experience for everyone
- Flexible small groups
 - To promote multiple perspectives
 - To encourage collaboration
- Partnering
 - To provide practice opportunities
 - To scaffold instruction
 - To give assistance before independent practice
 -

Homogenous or heterogeneous grouping:

- Group students homogeneously by language proficiency, language background, and/or
- ability levels.
- Heterogeneous variety maintains students’ interest.
- Movement from whole class, to partners, to small group increases student involvement.

- Heterogeneous grouping can challenge students to a higher level and provide good student models.
- Varying group structures increases the preferred mode of instruction for students.

Cooperative Learning Ideas

- **Information gap activities**
Each student in a group has only one or two pieces of the information needed to solve the puzzle or problem. Students must work together, sharing information, while practicing their language and using critical thinking skills.
- **Jigsaw**
Jigsaw a reading task by chunking text into manageable parts (1–2 pages). Number students in each group (1–4 or 1–5). All #1s read the first 2 pages, #2s read the second 2 pages, and so on. These numbered expert groups then discuss their reading and share ideas. The original groups then reconvene, discuss the whole text, and share their expertise. Students pool their information.
- **Numbered heads together**
Similar to Jigsaw, but without forming expert groups. Each student works on one portion of assignment and then students share.
- **Four corners**
This activity lends itself well to introducing a topic or chapter of study. Write one question or idea on each chart paper. Divide class into 4 groups, each group has a different color marker. Each student group moves to one corner chart and a designated student begins writing their ideas on the chart. Students then move clockwise to next corner, read responses and add their comments.
- **Roundtable**
Use with open-ended questions, grammar practice. Small groups of students sit at tables, with one sheet of paper and a pencil. A question, concept, or problem is given to each group by the teacher; students pass paper around table, each writing his/her own response. Teacher circulates room.

- **3-Step Interview**
Students are paired. Each student listens to the other as they respond to a topic question. At the end of 3 minutes, each pair joins another pair of students and shares what their partners said. This activity provides students with a good way to practice language.
- **Writing Headlines**
This activity provides a way to practice summarizing an activity, story, or project. Provide models of newspaper or magazine headlines. Students work in pairs writing a headline for an activity. Pairs share their headlines with the rest of the class and the class votes on the most effective headlines.
- **Send a Problem**
One table team sends a question or problem to another table. Each table team solves or answers the question and passes it back to original table. This is a good way to review for a test.

Wait Time

Wait time varies by culture. Research has shown that the average amount of wait time in American classrooms is not sufficient.

- Allow students to express their thoughts fully without interruption.
- Allow students to discuss their answer with a partner before sharing with the whole group (known as Think-Pair-Share).
- Have more advanced students write their response while waiting.

Clarify Key Concepts

- Clarify vocabulary and language concepts in the students' first language when possible.
- Use bilingual paraprofessionals, teachers and peers as those who can help clarify concepts, vocabulary and procedures.
- Use native language texts, dictionaries and word lists as tools.

6. Practice and Application

Lessons should include multiple opportunities to use hands-on materials or manipulatives to learn and practice the content and should include activities for students to apply content and language knowledge in their learning. Hands-on activities and materials enable students to forge connections between abstract and concrete concepts. Students make these connections most effectively when they are engaged in activities that integrate all language skills such as listening,

speaking, reading, and writing.

Hands-on Materials and Manipulatives for Practice

Students need

- multiple opportunities to practice;
- relevant, meaningful ways to practice a concept; and
- “hands-on” experiences and concrete manipulatives.

Teachers should

- divide content into meaningful short chunks;
- keep practice time short (10-15 minutes);
- keep practice periods frequent and close together when exploring new content;
- review material periodically from previous learned content; and
- give students immediate feedback.

ELL students need to connect abstract concepts with concrete experiences. Especially in mathematics, manipulatives can be organized, counted, rearranged and dismantled. Physically manipulating objects helps the student make these necessary connections.

Application of Content and Language

New content and abstract concepts need to be presented in personally relevant ways that spark a student’s prior knowledge and experiences. Some examples include the following:

- Keeping personal learning journals
- Making and/or playing a game for reviewing content (Bingo, Jeopardy etc.)
- Writing test questions or creating math problems for another student to solve
- Teaching a concept to another student

Encouraging students to discuss, interact, and work together makes abstract concepts more concrete. These are some ways to do this:

- Making and using graphic organizers
- Solving problems in cooperative groups
- Engaging in discussion circles
- Partnering students for a project

Opportunities for social interaction promote language development. Encourage partner work, small group work, and the reporting of information both orally and in writing. It is important for us to model correct English language grammar after a student has made a grammar or pronunciation error in order to instill appropriate grammar and word usage. However, it is also important to do so in a gentle but effective manner.

Integration of Language Skills

Oral language development and language skills such as reading, writing, speaking, and listening need to be developed in conjunction with one another. They are all interrelated and integrated naturally.

- Practice in any one area promotes development in the other areas as well.
- Connections between abstract and concrete concepts are best made when all language processes are incorporated and integrated during practice and application.

7. Lesson Delivery

Lesson delivery includes how well the stated content and language objectives are supported during the lesson, to what extent students are engaged in the lesson, and how appropriate the pace of the lesson is to students' abilities. The research relating to engaged time on task states that instruction that is understandable to ELLs, that creates opportunities to talk about the lesson's concepts, and that provides hands-on activities to reinforce learning, captures students' attention and keeps them more actively engaged.

Content Objectives

Content objectives describe **what** the students will learn during the lesson.

Content objectives should be stated orally; be written where all will see, preferably in the same space each time; and be limited to one or two per lesson. Clarifying these objectives help:

- provide a focus for the lesson;
- provide a structure for carrying out the procedures of the lesson;
- allow students to be aware of the purpose and direction of the lesson; and
- provide ways for teacher and students to evaluate the lesson in respect to the content objectives.

Language Objectives

Language objective describe **how** the student will learn the content of the lesson.

Language objectives should be stated orally and should be written where all will see, preferably in the same space each time. Language objectives can be specific academic “school words” and they need to be recognizable in the lesson’s delivery.

Pace of Lesson

Pacing refers to the rate at which information and concepts are delivered during a lesson. The pacing rate for ELL students must be quick enough to keep students’ interest but not so quick that it makes understanding difficult.

Engaged Students

- For lesson delivery to be considered effective students should be actively engaged 90% to 100% of the time period set-aside for the lesson.
- Students should be engaged in activities that relate directly to material that they will be tested on.
- Effective teachers minimize off task activities such as making announcements, passing papers etc.

These are some factors that contribute to high levels of student engagement:

- Well planned lessons
- Clear explanation of academic tasks or instructions
- Appropriate allocation of time for academic task
- Strong classroom management skills
- Opportunities for students to apply learning in relevant and meaningful ways
- Active student involvement in planning and implementation of activities
- Lesson design that meets the language proficiency and learning needs of students

8. Review and Assessment

Throughout the lesson, and especially at the end, it is important to determine how well students have understood and have retained key vocabulary and content concepts. The determination of whether to move on or offer additional instruction and support is the key to effective assessment and instruction. It is essential for the success of English language learners. It is important for teachers to incorporate review and assessment into the daily lesson to assess student learning and effective teaching. Effective sheltered instruction involves reviewing important concepts, providing constructive feedback through clarification, and making instructional decisions based on student response.

Review of Key Vocabulary

Review key vocabulary by

- relating new words to previously learned words with the same pattern or structure;
- drawing the attention of the learner to verb tense, parts of speech and sentence structure; and
- repeating and reinforcing language patterns so that learning words becomes automatic.

Scaffold student learning through

- paraphrasing—rephrase a sentence to help in clarifying a word;
- systematic word study—since isolated word lists and dictionary definitions do not necessarily promote vocabulary or language development, it is important for students to be able to become familiar with and study words in a variety of ways (write them, say them, see them, act them out, draw them, sing them, etc.); and
- word study books or personal dictionaries—student-made personal books in which the students enter frequently used words, concepts, and ideas.

Review of Key Content Concepts

Review key concepts before, during, and after a lesson using the following strategies:

- Informal summarizing—“Discuss with your partner the three most important things you have learned up to this point.”
- Chunking of information—Lead students in a periodic review aloud of text or material.
- Structured review—Students summarize with partners or in small groups, listing key points.
- Linking review—Link the review back to content objectives to ensure a focus on essential concepts.
- Final review—Allow students to ask questions to clarify their own understanding.

Providing feedback during review clarifies and corrects misconceptions, helps students develop English proficiency, and allows teacher to paraphrase and model correct grammar and usage.

Assessment of Lesson Objectives

- **Assessment** is “the gathering and synthesizing of information concerning student learning.”
- **Evaluation** is “making judgments about student learning.”

Assessment comes first, then evaluation.

- Informal Assessment
 - involves on-the-spot and on-going opportunities to determine the extent of student learning.
- Authentic Assessment
 - applies to real life contexts;
 - is multidimensional (includes writing, interviews, models, drawings, observations, projects, and group responses);
 - includes multiple indicators to show competency of a content objective; and
 - uses rubrics to define the levels of learning and is shared with students and parents.

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Electronic References

<http://txcc.sedl.org>