

## Specially Designed Academic Instruction in English (SDAIE)



by Darrel Nickolaisen  
Hesperia Unified School District  
Apple Valley, California

SDAIE is a teaching approach that allows English language learners full access to key curricular concepts while acknowledging their limited ability to communicate extensively or proficiently in English. Based on the theoretical work of Stephen Krashen and James Cummins\*, SDAIE strategies are designed to make core academic concepts understandable to English learners through the extensive use of comprehensible input in a supportive affective environment.

The purpose of SDAIE is to provide English learners equal access to the standard curriculum. SDAIE courses are not remedial in nature; the curriculum is in no way watered down. The only difference between SDAIE instruction and regular instruction is the SDAIE teacher's use of strategies that allow English learners to comprehend key curricular concepts without their needing to have an extensive understanding of English. Teachers who use SDAIE strategies find that their English learners are not only able to learn the same essential concepts as their native English-speaking counterparts, but are also able to accelerate their progress toward full fluency in English. Although all English learners benefit from exposure to SDAIE strategies, these strategies are most effective when used with students who have reached at least an intermediate stage of English fluency.

Many teachers characterize SDAIE simply as "good teaching," and it is true that SDAIE borrows from and adapts the best practices of many instructional approaches. When teachers begin to implement the SDAIE approach, they usually find that they have already been using many of its strategies. However, most teachers use these strategies intermittently only, and SDAIE emphasizes the consistent application of these sound instructional practices in the everyday teaching of English learners. Examples of many of these strategies are listed in the following summary of major features of the SDAIE approach.

\*Cummins, James. 1981. The role of primary language development in promoting educational success for language minority students. In California State Department of Education, *Schooling and Language Minority Students: A Theoretical Framework*. Los Angeles: Evaluation, Dissemination and Assessment Center. California State University.

Krashen, S. 1982. *Principles and Practice in Second Language Acquisition*. New York: Prentice-Hall.

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**Contextualizing the Lesson**

Lesson contextualization is the single most important feature of the SDAIE approach. Teachers using SDAIE techniques supplement the *words* they use with alternative forms of communication. They do this by acting out their words and by referring to pictures, charts, and graphs whenever possible. They give their students as many visual and nonverbal clues as possible. They draw upon their students' background experiences to give meaning to lessons. They ask their students to do many hands-on activities and to participate in games and role-plays to increase understanding.

The concentrated use of comprehensible input is a key feature of SDAIE, but frequent monitoring of student understanding is also very important. SDAIE teachers frequently pause in their instruction to make comprehension checks. Comprehension checks are often simple questions relating to the instruction the teacher has just given. These questions should be phrased so that students can answer them with nonverbal or short verbal answers. Sometimes SDAIE teachers use hands-on activities and games to assess student comprehension. Students should be given the opportunity to *show* what they understand rather than always having to *tell* what they understand.

**Tapping Prior Knowledge**

An important companion to lesson contextualization is tapping prior knowledge. SDAIE teachers scaffold new concepts by "hanging" them on the background understanding of their students. They do this by using inquiry charts (KWL), concept webs, show and tell, and so forth. Students who are able to relate new instruction to what they already know can better apply the new concepts they are being taught.

**Modifying the Use of the Text**

Modifying the use of the text is another important feature of the SDAIE approach. SDAIE teachers summarize each chapter of the text for their students before beginning specific instruction. They use textbook features such as section headings and boldfaced print to help their students chart the key concepts being presented. They point out pictures in the text that illustrate key concepts. SDAIE teachers consistently point out the features of the textbook that will help their English learners focus on each chapter's major concepts, thus helping them avoid getting mired down and lost in the text's details.

**Creating a Positive Affective Domain**

Creating and maintaining a positive affective domain or a feeling of low anxiety is one of the major factors contributing to the success of the SDAIE approach. Research indicates that students learn best when the classroom environment is comfortable and relaxed. This is especially true for language learners. SDAIE teachers reduce the anxiety English learners feel about speaking in front of their peers by allowing them to work in pairs or in small groups. Cooperative groups are particularly successful because they allow learners with limited English communication skills to contribute to the group effort in ways other than by speaking. Hands-on activities and games also help lower the student's affective filter during class.



A major influence on any classroom's positive affective domain is the way teachers respond to the answers English learners give them. Teachers can reduce student anxiety levels by accepting student language without overtly correcting it. For example, if a student offers only a one-word reply to a question, teachers can accept it rather than demanding a sentence. The sentence will come later as students develop enough trust to experiment with more difficult or complex language structures. If a student mispronounces or misuses a word or phrase, teachers can accept it. Most research indicates that overt error correction of student speech has very little effect on speech improvement. Furthermore, students tend to withdraw from active participation in classrooms wherein their speech is constantly being corrected. Some teachers may find it helpful to matter-of-factly model proper speech by casually restating their students' improperly pronounced or formulated answers.

### **Teaching Study Skills**

Students with limited comprehension skills need help organizing information in ways that will be easy for them to recall and useful for them to study. SDAIE teachers cannot assume that their students have the organizational and study skills necessary for them to successfully study on their own. SDAIE teachers teach their students how to summarize and paraphrase, and they provide their students graphic organizers and webbing activities to help them see the relationships between the concepts they are learning. They teach their students how to take notes and organize their work. They show their students how to scan for key information and access the resources provided in their textbook, the library, and on the computer. SDAIE teachers guide their students in implementing effective study practices.

The integration of these various features in content-area instruction has proven to be a very effective way of reaching and teaching English learners. Like all children, they come to our classes eager to learn. Although they cannot, as yet, understand every word that their teacher says, SDAIE strategies help these children focus on the essential things their teacher wants them to learn. They will continue to learn. They are able to participate in class, and as they participate, they not only internalize the concepts they are taught, but oftentimes achieve dramatic growth in English. Specially Designed Academic Instruction in English applies the consistent use of research-based, hands-on, interactive practices for the best instruction for transitioning English learners.



## **Pictures and Concrete Materials**

**Using Drawings and Photographs** Teachers can use readymade or handmade drawings and professional or amateur photographs to elicit and build upon students' background knowledge. Drawings are also a wonderful way to help students learn and review vocabulary.

- Ask students to build a picture dictionary of important vocabulary terms.
- Remember that both teachers and students can use drawings to ask and answer questions.

**Using Common Objects** Using common objects helps students connect the abstract world of mathematics to the concrete world of their knowledge and experience.

**Using Math Manipulatives** Math manipulatives are another way to help students connect abstract principles to the concrete world. The ability to "touch and see" abstract concepts such as place value through the use of manipulatives is important for all students, but essential for English language learners.

## **Diagrams and Charts**

**Using Graphic Organizers** A graphic organizer is a pictorial representation of a concept or principle. Graphic organizers help students convert complex descriptions or explanations coming from their teacher and their textbook into visual representations.

- Use organizers to help students see the relationships between and among seemingly disparate pieces of information.
- Use organizers to help students understand comparisons.
- Use organizers to help students organize their thoughts.
- Have students use organizers to extract essential information from wordy narratives, particularly those in word, or story, problems.

**Using Word Webs** A word web is a list of key terms connected by lines or arrows in such a way that it shows how each of the words in the list is related to some or all of the other words in the list.

- Use webs to introduce and review key vocabulary terms.
- Use webs to break down language or perception barriers that might keep your students from comprehending basic math content.

**Using Reference Charts** Reference charts are posters containing useful information.

- Post a number of charts, such as illustrated Tables of Measures, the Math Word of the Day, and illustrated Steps for Solving Word Problems, to help your students access basic math content.
- Use these charts to teach and remind students about study and reference skills, textbook organization, and problem-solving methods.

## **Oral Language**

**Using Intonation** Intonation is the overall rhythm of speech and comprises stress, pitch, and juncture (or phrasing).

- Help your students focus on key vocabulary and key concepts by slightly exaggerating your intonation as you speak.
- Slow your speech rate somewhat so that your English learners can keep up.
- Remember that poetic language (everything from action rhymes and catchy commercials to classic songs and favorite poems) provides ready access to any new language.

**Using Volume** Varying the volume of your voice helps highlight key vocabulary and important connections. Using varying volume also helps get (and keep) students' attention.

**Using Pauses** Pauses interspersed at appropriate points throughout a lesson give students extra time to absorb and process information.

- Use pauses to allow time for more students to respond.
- Use pauses to stress relationships between and among key ideas.

**Simplifying Sentences** Beginning English learners have difficulty following complex speech patterns.

- Present concepts in clear, concise terms without deviating from the point.
- Keep comments and questions short and to the point.

**Rephrasing** Rephrasing means phrasing a question or statement in a different way, rather than simply repeating it. It also means rephrasing a student's question or response, using standard English syntax and sentence structure.

**Using Repetition** Using repetition means repeating key words, phrases, and sentences.

- Encourage students to repeat key words, phrases, and sentences with you and after you.
- Use echo reading and choral reading or recitation.

## **Body Language**

**Total Physical Response (TPR)** TPR is the use of body movement in the teaching and learning of new vocabulary and concepts. Research indicates that when students incorporate body movement as they are learning, the brain forges additional connections between concepts being taught and concepts already learned.

- Incorporate TPR in your instruction by asking students to point to objects or words as you refer to them.
- Use a “coming together” motion to signify addition or multiplication and a “taking apart” motion to signify subtraction or division.
- Use songs and action rhymes that call for Total Physical Response.
- Have students act out problem situations.

**Using Gestures and Facial Expressions** Using gestures and facial expressions helps provide comprehensible input.

- Use a variety of gestures and facial expressions while you are talking to get and keep students’ attention—and to emphasize key concepts.
- Nod slowly and use gestures and facial expressions while students are talking to let them know the extent to which you are tracking what they are saying.

**Using Pantomime** Pantomime can be used to provide comprehensible input.

- Act out addition/multiplication (combining) and subtraction/division (separating) situations.
- Encourage students to use motions or pantomime with manipulatives whenever they can’t find the words to explain what they want to say.
- Use pantomime freely and often in order to emphasize to students that it is an acceptable and useful form of communication.

**Role Playing** Role playing can be an invaluable means of providing comprehensible input.

- Have students act out problem situations involving all four operations (addition, subtraction, multiplication, and division).
- Have students play roles, such as *Shopkeeper*, *Banker*, and *Customer*.

## Connections

**Linking to Familiar Contexts** Students will be better able to understand new concepts when those concepts are linked to familiar contexts.

- Analyze the lesson from the English learner's point of view.
- Personalize the lesson by relating new vocabulary to familiar contexts.
- Provide essential background experience.
- Relate objects or situations described or pictured in the student book to objects or situations students might be more familiar with in their own cultures.
- Expand on students' cultural experiences.

**Linking to Prior Knowledge** Students bring with them a vast amount of knowledge from their experiences at home and in school. Linking new concepts to concepts that students have already internalized will increase their learning—and their confidence.

- Link instruction to prior knowledge by discussing previous lessons in which students learned related or prerequisite skills.
- Write on the board key math terms students have already learned.
- Relate math concepts and skills to reading, writing, science, social studies, art, music, physical education, and other subject areas.

**Linking to Other Subjects** Incorporating math instruction into other subjects by utilizing interdisciplinary activities and projects helps English learners understand and appreciate the foundational role of mathematics in their studies and in their lives.

## Student Participation

**Small-Group Interaction** Because of the social nature of learning, students need ongoing opportunities for social interaction when they are learning new concepts. The use of small-group and partner work helps create a low-risk learning environment and encourages both reluctant students and uninvolved (and seemingly uninterested) students to participate. Small-group work tends to stress communication rather than competition. It facilitates conversation in English and reinforces vocabulary development.

**Peer Questioning** This strategy involves teachers pairing students and having one ask questions of the other.

- Encourage partners to take turns explaining the directions for an activity to each other.
- Encourage partners to talk to each other about what they are doing and about why they think something is so. ("Tell Ana why you think this is a triangle.")

**Using Nonverbal Responses** Oral communication develops through a series of natural stages of progression ranging from nonverbal gestures or facial expressions to complex oral paragraphs. Language learners move through each stage at their own pace, and they should not be forced to try to communicate at a higher stage until they are able to do so.

- > Accept all nonverbal responses from students while encouraging verbalization in your own interaction with them.
- > Ask students to point, to gesture, and to give “thumbs up/thumbs down” kinds of responses.

## **Scaffolded Learning**

**Modeling and Demonstrating** Modeling and demonstrating help students’ comprehension by allowing them to see mathematical processes rather than just hear or read about them.

- > Work through activities before asking students to try them.
- > Show students what the final product will look like.
- > Teach students how to use various math manipulatives. (They are of little use to students unless they have genuine facility with them.)
- > Use examples, gestures, actions, and materials to explain and clarify directions.

**Instructing in Small Steps** Instruction in small steps gives English learners the chance to process the information in each step and gives the teacher the opportunity to check student comprehension before proceeding to the next step.

- > Preview directions and explanations in the student book and model each step in sequence.
- > Move from simple commands to either/or questions to predicting/estimating questions to how/why questions to comparing/contrasting questions to full-scale discussions and problem-solving sessions involving higher-order thinking skills.

**Giving Frequent Feedback** Giving frequent feedback means responding positively and naturally to all forms of response.

- > Let your students know how they are doing by responding to both their words and their actions. (Even when they seem to be missing the boat, they need to know that you are paying attention to them and that you care about them “getting it.”)
- > Frequently assess your students’ understanding by asking them to tell you what they think you just said, by asking them to give examples, or by explaining to you what something means.

**Expanding Student Responses** Expanding student responses often means using polar (either/or) questions with students who are just



beginning to produce oral English and using “wh” questions (who, what, when, where, why) with students who are more fluent.

- Expand your students’ one- or two-word answers into complete sentences. (“Yes, a triangle does have three sides.”)
- Respond to grammatically incorrect answers by recasting them using standard English syntax. (Student: “I gotted 4 tens and 1 one.” Teacher: “That’s right. You have 4 tens and 1 one.”)

## **Motivation**

**Giving Frequent Encouragement** Students achieve more when they are reminded of what they can do instead of what they cannot do.

- Accept all forms of response (gesturing, acting out, and speaking) as valid forms of communication.
- Accept mistakes as a natural part of the learning process.
- Mirror students’ verbal responses with clear and simple verbal interpretations.
- Attempt to question or otherwise interact with each student at least once during each math period.

**Using Practice Games** Games help students experiment with and practice concepts they have learned and are learning.

- Organize an area of the classroom dedicated to math manipulatives and games.
- Teach students how to use various math manipulatives on their own.
- Use vocabulary cards for matching games and labeling activities.

**Patient Listening** Teachers who are patient listeners nod slowly and use facial expressions while students are talking to let them know the extent to which their teacher is tracking what they are saying.

- Remember to invite individuals and groups to talk with you about the work they are doing.
- Remember to listen—and respond—to your students during those many teachable moments that occur throughout the day (for example, when they are lining up for lunch or recess).