FROM COLLEGE AND CAREER READY STANDARDS
TO TEACHING AND LEARNING IN THE CLASSROOM:
A SERIES OF RESOURCES FOR TEACHERS

HIGH-LEVERAGE PRINCIPLES OF EFFECTIVE INSTRUCTION FOR ENGLISH LEARNERS

Authors:
Rebecca Neri, Maritza Lozano, Sandy Chang, Joan Herman

National Center for Research on Evaluation, Standards, and Student Testing
University of California, Los Angeles
Graduate School of Education & Information Studies

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INTRODUCTION

English learners (EL) are the fastest growing student population in U.S. schools. As learners of English in U.S. classrooms, these students must learn both disciplinary content and English at the same time, doing "double the work"[1] of their monolingual peers.

Teachers can support English learner students through purposeful instruction designed and planned to address their unique needs. Teachers help EL students access academic content by attending to the academic language demands found in the disciplines. This includes developing language and content-area knowledge simultaneously through designing and scaffolding rich language opportunities that support content instruction.

The purpose of this resource is to provide teachers of EL students with effective, high-leverage learning and teaching principles that can be incorporated into daily instructional plans and routines. Instruction that addresses EL students' needs should include four key considerations:

1. Understand and address the academic language demands of the lesson
2. Build upon students' background knowledge
3. Design and scaffold learning opportunities in every lesson that integrate listening, speaking, reading, and writing domains
4. Provide opportunities for student participation through meaningful discourse and structured collaboration

This resource begins with an overview of college and career ready standards and the instructional shifts required of teachers to help their EL students achieve the new standards. The next section presents high-leverage principles for teaching and learning with EL students, including guiding questions and examples of how to integrate the principles into instruction. To illustrate how these principles are enacted in a lesson, we provide an annotated vignette. At the end of this resource, we provide a table highlighting the key literature in support of the high-leverage EL principles.

This resource is part of a series produced by the Center for Standards and Assessment Implementation (CSAI) to assist teachers and those who support teachers to plan teaching and learning from College and Career Ready Standards (CCRS) for all students, including students with disabilities, English learners, academically at-risk students, students living in extreme poverty, and gifted/talented students. The series of resources addresses key shifts in learning and teaching represented in the CCRS. The processes described and illustrated in this resource are applicable to all States' CCRS, including the CCSS.

[1] See Short and Fitzsimmons, 2007.

NEW STANDARDS AND INSTRUCTIONAL SHIFTS

New college and career ready standards (CCRS) have established more rigorous expectations of learning for all learners, including EL students, than what was expected in previous standards. A common feature in these new content-area standards, such as the Common Core State Standards in English language arts and mathematics and the Next Generation Science Standards, is their emphasis on students' use of language to articulate and convey understanding of the content. The heightened role that language plays in CCRS presents new challenges for EL students and their teachers by calling for improved instructional strategies that simultaneously address language and content-area learning.

Shifts in instruction related to language learning that the new standards require are presented in the figure below. The figure is adapted from Stanford's Understanding Language initiative, which commissioned papers from national experts on EL learners, language, and instruction with regard to the new standards.

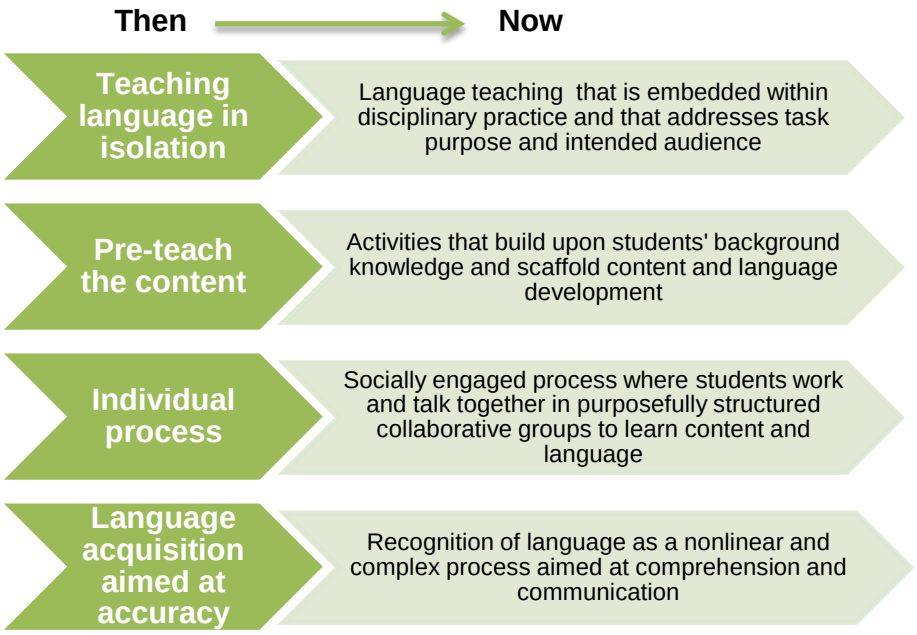


Figure 1. Shifts in instructional practices as they relate to language learning in the content areas. Adapted from Walqui (2012) and Haynes (2012).

HIGH-LEVERAGE PRINCIPLES FOR TEACHING AND LEARNING WITH ENGLISH LEARNERS

New standards provide new opportunities for educators to design instruction aimed at increasing the participation, meaning-making practices, and achievement of EL students. While research has found that what is good for EL learners is good for all students, what is adequate for a general population of students may not meet the needs of EL learners. For that reason, this resource presents four high-leverage principles to guide EL instruction. These principles are “high leverage” because they draw upon the work of leading educators, scholars, and organizations in the field of teaching and learning for EL students. The principles presented in this resource represent a synthesis of literature on effective instructional strategies for EL students.

Below, we describe each principle with definitions and examples. The descriptions are followed by guiding questions for teachers to reflect upon as they implement these principles in their instructional routines, plans, and practices. As it is often more helpful to see guiding principles in action, teaching tips or examples are also provided to help teachers implement the principles.

Principle 1: Understand and address the academic language demands of the lesson

Broadly defined, academic language demands are the ways in which students use language (i.e., reading, writing, listening, and speaking) in academic settings to participate in learning tasks and demonstrate their learning. Specifically, academic language demands encompass language features at the word, sentence, and discourse levels and language functions, or the communicative purposes of using language (e.g., explaining, justifying, inferring, seeking information, informing).

Helping students identify and understand academic language demands benefits both students’ language development and conceptual learning. For EL students, conceptual learning and language development go hand-in-hand. As EL students are learning content, they are learning language, and vice versa. Attending to academic language demands requires teachers and EL students to

understand how each language feature and function work together to convey meaning about discipline-specific concepts and content.

Academic Language Functions

Academic language functions involve how students use language. Although disciplines may favor certain language functions over others (e.g. valuing specific reasoning processes, such as inductive vs. deductive, or traditions of argument, such as Socratic Method) many academic language functions are used across the disciplines. The list below provides some examples of academic language functions that cut across most disciplines:

- Describing content
- Citing and using evidence
- Evaluating knowledge
- Analyzing or synthesizing information
- Constructing arguments
- Making meaning
- Inquiring and raising questions
- Explaining procedures or processes
- Justifying opinions

Academic Language Features

Academic language features consist of word, sentence, and discourse structures that comprise language. The three levels are defined below:

- *Word* – Meaning and use of vocabulary words and phrases
- *Sentence* – Organization of sentences by grammar (the system of rules by which words are put together to make sentences, e.g., verb tense and agreement) and syntax (the arrangement of words and phrases to create well-formed sentences in a language; e.g., ordering of words to tone and style)
- *Discourse* – Organization of structures in written and oral text longer than one sentence

The table below lists common characteristics of academic language features at each level and provides examples of the demands they set for EL students. Note that some characteristics may seem more difficult, or demanding, than others; teachers should use their knowledge of students and content-area expertise when determining how to best apply these language features in their instructional plans and routines.

Feature Level	Common Feature-Level Characteristics that Contribute to Academic Language Demand	Examples
Word	Words or phrases that are used predominantly in academic settings: • General academic words found across disciplines • Discipline-specific words • Multiple meaning words	General academic vocabulary: *develop*, *result, process*, *analyze* Discipline-specific vocabulary: *hypotenuse*, *mixture, setting, four score* Multiple meanings: • *Matter* – everyday meaning is something under consideration (e.g., "what's the matter?"), scientific meaning is something that has mass and takes up space, and the meaning in speech and writing is the subject or topic • *Significance* – has everyday meaning, but it also has a meaning specific to statistics
Sentence	Changing verb tenses (past, present, future) and complex verb forms (modals, past participles, perfect, etc.) contribute to confusions about time: when things happen, continue to happen, or have ended. There are 12 verb tenses in the English language: • Present • Past • Future • Present Perfect • Past Perfect • Future Perfect • Present Progressive • Past Progressive • Future Progressive • Present Perfect Progressive • Past Perfect Progressive • Future Perfect Progressive Modal verbs have subtle yet distinct differences in expressing possibility, ability, necessity, or conditionality (e.g., can, should, must, need, could); these nuances in modals can cause confusion for EL learners.	Examples using 4 of the 12 verb tenses to illustrate complexity of time and sequence in verb usage: • Present perfect (action going on at the time of speaking): *The students discuss the problem set while the teacher walks around.* • Future perfect (action that will be going on some time in the future): *The students will discuss the problem set while the teacher walks around.* • Past perfect progressive (an action in the past that began before a certain point in the past and continued up until that time): *Students had taken their pencils and papers out and placed them on the desk seconds before the bell rang.* • Future perfect progressive (action that will be completed before another action takes place): *Students will have taken their pencils and papers out and placed on their desks by the time the bell rings.* Modal verbs change meanings of sentences: • *Teachers must help EL students understand academic language.* Versus • *Teachers could help EL students understand academic language.*

	Complex and compound-complex sentence structures have embedded clauses that pack information into one sentence, sometimes making sentences denser and harder to understand.	• Simple: *Water is found on Earth. Water is in liquid, gas, and solid states*. • Complex: *Water, found on Earth, is in liquid, gas, and solid states*.
	Nominalizations are nouns that are created from verbs or adjectives, and they are a hallmark of academic writing, especially in science. • Examples of nominalizations: produce→*production* explain→*explanation* intense→*intensity* applicable→*application* evaporate→*evaporation*	Nominalizations make sentences more complex because: • The most important action word is buried: *A comparison was made between the effects of temperature on pH* instead of *We compared the effects of temperature and pH.* • Sentences become more abstract: *This paper gives an analysis of the problem and offers a solution* instead of *This paper analyzes and solves the problem.* • Use of the nominalization packs more information into the sentence, especially embedding a whole process into another process: *Evaporation is the first step in the water cycle* instead of *Water turning into gas is evaporation; evaporation is the first step in the water cycle.*
Discourse	Coherence – the various ways that parts of text are related to each other through the following structures (called cohesive devices): • Pronouns: *he, it, this* • Discourse connectors: *however, therefore, because, since, such as, but* • Temporal connectors: *first, then, next* Paragraph and essay structure: • Topic, supporting, and concluding sentences • Introduction, thesis statement, supporting paragraphs, conclusion Informational text features: • Headings, subheads • Table of contents, glossary, marginalia • Graphics, illustration, charts, tables Narrative text features: • Initiating event, raising action, climax, falling action, resolution • Dialogue	Cohesive devices help with text organization, but can sometimes be confusing and add to text complexity: • Pronoun chains can be long and have unclear referents: *The students were in the store. They wanted to get school supplies. The boys wanted to buy pens but the girls did not want them.* • Use of discourse connectors signal important emphasis or changes in ideas in the text: *Teachers should provide instruction in academic language demands. However, academic language demands should not be taught in isolation.* Some narrative structures that may be difficult to comprehend: *flashback, foreshadowing, dialogue between several characters* (especially when multiple pronouns are used)

Teachers are responsible for teaching all students content and for helping all students, EL students in particular, understand the academic language demands related to the disciplines. For example, a math teacher might focus on how to help students explain a word problem solution to a peer, whereas a social studies teacher might focus on helping students support an argument using different documents. As teachers plan and teach a lesson, they should consider how to support EL students with the academic language demands of the content – for example, the key vocabulary, phrases, grammatical patterns, and organization of text (written and oral; e.g., persuasive essay, scientific presentation, math solution). By meaningfully teaching these academic language demands to EL students in the context of discipline-specific content, students will be more readily able to access and engage with future academic content.

Guiding Questions

- What are the academic language demands (vocabulary, sentence, discourse structures, functions) of the task?
    - What academic language features are found in what students read and/or listen to in a lesson? For example, are students expected to read text that has long, complex sentences? Or are students expected to listen to teacher dialogue with many technical vocabulary words?
    - What language functions are found in the lesson? In other words, which academic language functions are related to what students will process and/or produce (e.g., reading, speaking, and/or writing) in the lesson? For example, writing a summary, presenting a finding to the class, answering questions, etc.?
- What are the specific disciplinary academic language demands in the lesson?
    - What words reflect key vocabulary found in the content and topic of the lesson?
    - How does the text or task reflect how people in the discipline (e.g., scientist, mathematician) communicate their knowledge?
- In what ways do the academic language demands act as gatekeepers to conceptual development? And how will teachers help students navigate the academic language demands to understand the content? For example, do verb tenses in a text create confusion about time order and sequence of a story? Are the majority of the sentences found in a text complex? Are cohesive devices hard to follow?
    - How accessible is the language in the texts, directions, etc. used in the lesson? Remember that the goal is to provide students with opportunities to engage in the task itself, avoiding unnecessary confusion with language.

Teacher Tip

Research shows that it is ineffective - and inauthentic - to teach language features and functions in isolation and apart from content. In the course of a lesson, there may be times when teachers will need to highlight specific features or functions (e.g., teach a mini-lesson on pronouns and referents or how to analyze a text). However, teachers and students should go back to the text or task to ensure

that the learning of a specific language feature or function helps students comprehend the text and task.

Additionally, a tendency for some teachers is to focus on building word-level academic language knowledge with students. Academic vocabulary words are important in conceptual understanding, and studies show that EL students benefit from rich vocabulary instruction. Rich vocabulary instruction includes providing students the several opportunities to encounter words when reading longer text, engaging students in extended discussion and conversations, and using vocabulary words in all modalities (i.e., listening, speaking, reading, writing). Furthermore, research has also shown that knowledge of sentence- and discourse-level structures is as important, if not more so, in comprehending complex information and ideas. Proficient language users understand how words are organized through various syntactic and grammatical structures and use these structures to form a variety of sentence types. Furthermore, extended discourse and text is much more than a group of sentences, but an organization of sentences by ideas and structure. EL students benefit from direct instruction learning how these three levels of academic language, along with language functions (or what students are using language to do), work together to make and convey meaning.

Example

A fifth grade teacher is going to have her students read the following passage on capuchin monkeys as part of a lesson on reading informational text.[2] After reading the text, she will ask her students to agree or disagree with this statement, *Capuchin monkeys make good service animals*, and cite textual evidence for why the student agrees or not. To plan for her lesson using this text, the teacher read and identified the academic language demands that may pose challenges to her students, particularly EL students, in comprehending the text. She first noticed that the language function of this text is to inform the reader about capuchin monkeys and the pros and cons about using these wild animals as service animals. Then she annotated the text, marking the academic language features that may cause comprehension problems for her students.

Text	Academic Language Features
Capuchin monkeys are very small. Some weigh less than eight pounds, even when fully grown. They are also extremely smart. In the wild, they have shown the ability to pick up tools and use them* to solve problems. Their hands can easily carry small tools. This makes it easier for them to handle modern items such as remotes and cell phones.	Word: • Multiple meanings: *wild* (same word, different parts of speech) • Academic vocabulary: *such as* Sentence:

[2] Excerpted from Smarter Balanced Assessment Consortium. (2014, May 16). *The English language arts practice test scoring guide – Grade 5 performance task*. Retrieved from http://www.smarterbalanced.org/wp-content/uploads/2015/11/G5_Practice_Test_Scoring_Guide_ELA_PT.pdf.

Although capuchin monkeys are smart and are able to handle small tools, not all types of monkeys are ideal to use as service animals. Some monkeys, such as howler monkeys, are too large or strong. For example, a monkey could suddenly hurt a person if it got angry or frightened for some reason. While some people believe capuchin monkeys are wonderful service animals, not everyone agrees. Capuchins are small, easy to train, and are able to bond, or form close relationships, with humans. However, they* are still, in the end, wild animals. April Truitt, directors of the Primate Rescue Center in Kentucky, says that having a wild animal in your home may put both the animal and the owner at increased risk of getting injured. She points out that it is possible for capuchins to become violent suddenly and this can be a danger to their owners and others. *[Note: In the original source, the text continues for about another page on capuchin monkeys as service animals.]*	• Verb tense changes in first paragraph and modals: *weigh, have shown, can* • Compound-complex sentences: *Although capuchin monkeys are smart and are able to handle small tools, not all types of monkeys are ideal to use as service animals. She points out that it is possible for capuchins to become violent suddenly and this can be a danger to their owners and others.* • Compound-complex sentence with an "if…than" structure: *For example, a monkey could suddenly hurt a person if it got angry or frightened for some reason.* • Long, compound sentence: *Capuchins are small, easy to train, and able to bond, or form close relationships, with humans.* Discourse: • Long pronoun referent chains: *Some, they, they, them* (pronouns marked with an asterisk [*] may confuse some readers as to what the pronoun refers to) • Unclear pronouns: *this* (refers to the entire sentence before the word)*, it* • Meaningful discourse connectors: *although, for example, while, however* • Reported speech: *April Truitt...points out that...*

By identifying the functions and features prior to lesson planning, the teacher is armed with knowledge on how academic language makes the text and task demanding. The teacher can better design a lesson plan that both addresses potential challenges with language and helps EL students develop language skills.

Principle 2: Building upon students' background knowledge

EL students have diverse backgrounds and differ in home and academic language, prior educational experiences, and cultural resources, or funds of knowledge.[3] Students' backgrounds are rich sources of information that teachers can build upon to make instruction relevant and meaningful. Teachers who adopt this asset-based approach to learning and teaching recognize the value in students' home and community experiences in addition to their prior academic knowledge. They design learning

[3] Funds of knowledge are the historically-accumulated skills and knowledge that students use to navigate their daily lives (Moll, Gonzalez, Neff, & Amanti, 1992).

opportunities that build upon students' background knowledge to enhance instruction, increase students' interest, participation and learning, and improve teacher-student relationships.[4]

When designing instruction for EL students, teachers should consider and expand upon how the instructional task at hand can be linked to students' funds of knowledge and prior educational experiences, content knowledge, and language development. The table below distinguishes between and provides guidance for assessing and building upon these types of student background knowledge.

Background Knowledge Category	Key Ideas	Assess students' background knowledge	Ways to build upon students' background knowledge
Prior educational experiences	• History of participation in subject matter • Self-efficacy and resilience • Teacher relationships • Belongingness • Family engagement	• Inventories and surveys • Artifacts • Family interviews/inventories • Writing prompts and samples • Focus groups • Portfolios (cumulative) • Grades • School involvement	• Grouping structures to enhance participation and belongingness • Choose tasks in students' zone of proximal development • Invite families into the classroom • Regular positive school-home communication • Students take on classroom responsibilities (helper, leader, facilitator, etc.) • Provide students with consistent feedback to support self-efficacy development
Prior Content Knowledge	• Learning progressions (building blocks) o Across grade o Within grade • Academic language • Topics, skills, and information • Knowledge of concepts and how they tie together	• Formal tests, assessments, and inventories • Artifacts, portfolios, and concept maps • Formative assessments • Building Blocks[5]	• Warm-ups • Pre-tests • Frontloading through visual media and class discussion • Quickwrites • K-W-L charts • Think-Pair-Share

[4] See Gonzalez, 2005; Guitart & Moll, 2014; Moll, Soto-Santiago, & Schwartz, 2013; Zipin, 2009.
[5] Building blocks are the incremental changes that occur in students' thinking or ability, as they progress in learning from one standard to the next. For more information see http://www.csai-online.org/resource/581.

Prior Language Development	• Language progressions • Home language literacy • Language proficiency levels • Measures of language development: meaning, form, and use[6]	• Student interviews • Language inventories • Writing samples • Observation (student discussions/interactions)	• Grouping structures • Think-Pair-Share • Visual supports • Repeated classroom routines • Peer modeling • Teacher modeling • Sentence frames and starters • Graphic organizers • Targeted instruction and strategic questioning
Funds of Knowledge	• home/community practices • cultural resources (e.g. family employment, sports, religion, out-of-school activities, community-embedded civic engagement, history, childcare, art, cooking, technology, economics, geography, agriculture)	• home/family visits and interviews • community involvement • inventories and surveys • autobiographies (written and digital) • artifact-based, mapping, and art-based interviews[7] o autobiography o self-portraits o relational maps (significant circle)	• design units or curricular modules that link to students' funds of knowledge • student-led research projects • math: culturally relevant word problems • text selections connected to student/family/community • plan classroom and school events connected to the community • kitchen science[8] • apprenticeship-based learning (students learning from other students, T learning from students) • civic engagement projects to address issues in the community • storytelling and oral history projects

Guiding Questions

- What background knowledge do students have/need to have to access the lesson?
- Can students access the content of the lesson given their current background knowledge?
- What home and community resources and knowledge can teachers leverage to help students understand the lesson content?

Teacher Tip

Teachers can gather insight about their students' background knowledge, including knowledge of their communities and families. Teachers may seek to learn about parents' employment, household

[6] Measures for meaning include native language equivalents, synonyms and antonyms, and meanings of prefixes, suffixes, and roots. Measures for form attend to word families, words with the same prefix or suffix, roots, and grammatical patterns. Finally, measures for use include general and metaphorical use, idioms, puns and jokes, etc.

[7] Teachers and researchers have found the following activities to be very helpful when gathering information about students' funds of knowledge: student self-portraits; maps of students' homes, communities, and favorite places in the world; autobiographies (both print-based and digital); and diagrams, such as circles in which students draw or list their cultural resources.

[8] Clegg, T., & Kolodner, J. (2014). Scientizing and Cooking: Helping Middle-School Learners Develop Scientific Dispositions. *Science Education*, *98*(1), 36-63.

management, religious affiliations and practices, linguistic and cultural practices, sports or other out-of-school activities, and the problems facing or opportunities embedded in the community. Regularly speaking with students and their families, conducting informal interviews, distributing questionnaires, and conducting pre-lesson surveys are just a few of the ways teaches might learn about students and their backgrounds. After gaining insight into their students' lives, teachers might use these new understandings to design meaningful and contextualized activities for students.

Example

A middle school math teacher in San Diego, CA regularly engaged with the families and community mentors of her students through home visits and her involvement in community programs. Through these interactions, the teacher discovered that many of her students worked with their parents on the weekend selling small trinkets, jewelry, clothes, party supplies, etc. or preparing and selling food. Leveraging this information, the teacher designed a semester-long project-based entrepreneurship instructional plan that was not only aligned to 8th grade math standards, but also relevant to students' lives. Students learned math content and academic language throughout the semester while building their own small business and sharing their expertise with their peers and teacher. The culminating assignment included a school event in which community and family members, teachers, students, and school administration celebrated and purchased students' items.

Principle 3: Design and scaffold learning opportunities in every lesson that integrate listening, speaking, reading, and writing domains

EL students require access to meaningful and challenging tasks. While students may require language supports to access lesson tasks, care must be taken in maintaining task quality and rigor. Too often, the language and conceptual demands of activities used for EL students are simplified to a level that leaves little opportunity for EL students to learn new content, develop new conceptual and linguistic understandings, and demonstrate their progress. Teachers can maintain the rigor of the tasks by tightly integrating all four language domains and incorporating domain-specific scaffolding techniques.

Teachers should design tasks that integrate reading, writing, listening, and speaking activities for the purpose of making meaning of content knowledge and language. All EL students, regardless of language proficiency, benefit from engagement in activities that require them to make use of oral and print-based literacy skills as the development of one domain is dependent on the other three.

Moreover, since oral language development is critical to literacy development, teachers should provide and scaffold many opportunities for students to engage in oral discourse and practice.

Scaffolds are used to support students as they engage with, comprehend, and communicate content and language learning using the specialized skills and knowledge of the specific academic discipline. When making decisions about language scaffolds, consider the learning goals for the lesson, students' background knowledge and current learning progress, and the language domain (i.e., listening, speaking, reading, and writing) supported. Language scaffolds include:

- visual representations
- multimedia and videos
- diagrams
- graphic organizers
- models
- various types of texts and talk
- sentence frames and starters
- strategic questioning

Guiding Questions

- Do students have opportunities to listen, speak, read, and write about the lesson content?
- What language scaffolds are necessary to provide students with access to the content of the lesson?
- Given students' current content and language knowledge, are students provided with sufficient time to use all four language domains?

Example

The following table provides some examples of language scaffolds that would support students in the different language domains.

Listening - Use visuals and physical gestures when providing verbal instruction - Provide students with written supports to accompany oral directions or instruction - Use predictable language patterns to support student comprehension of directions and tasks - Ask students to paraphrase what others have shared during discussion	**Speaking** - Use sentence frames to support student discussions - Use graphic organizers to provide students with an opportunity to write and organize their ideas prior to discussing - Ask students to paraphrase others' discussion remarks - Students prepare and give oral presentations
Reading - Use a graphic organizer to annotate text for main ideas and supporting details during instruction - Provide students with organizers they can use to support their own annotations during reading - Use an outline to orient students to important information in the text - Use anticipation guides as a pre-reading strategy	**Writing** - Model writing with students - Teach students how to use different graphic organizers to organize their writing - Teach students to notice writing techniques used by others - Discuss writing with students, providing feedback to support them in making progress

Principle 4: Provide opportunities for student participation through meaningful discourse and structured collaboration

EL students demonstrate their learning through discourse - structured teaching and learning interactions. When EL students engage in discourse, they work with peers to solve a problem, construct an explanation, provide a justification, build on the ideas of others, or express their thinking during a learning activity. Collaborative opportunities for EL students are particularly important. EL students use language to construct meaning, show content understanding, and develop language. Teachers gather evidence of content and language learning by strategically designing opportunities for discourse and collaboration. Teachers consider the types of groupings that would best support EL students.

Groupings could range from (a) pair to small to whole group, (b) heterogeneous to mixed to homogeneous English language proficiency levels, or (c) heterogeneous to mixed to homogeneous

home languages. For example, heterogeneous content groups might be used to support struggling students. Heterogeneous language groups can be helpful for modeling discourse, building students' vocabulary, and providing students encouragement to participate in larger classroom discussions. On the other hand, teachers might use homogeneous content groups to push medium ability groups to perform at higher levels. They might also use homogeneous language groups to develop the academic language of emerging EL students. These are a few considerations. Teachers might also design groupings that ensure EL students have the chance to play a facilitator or leadership role. After developing knowledge about their students, teachers might also find it useful to consistently pair an emerging English speaker with a bilingual speaker of the same home language for an indefinite amount of time. Regardless of the approach taken, designing for collaboration requires that these groupings purposefully and meaningfully support EL students' language and content development.

Guiding Questions

- What type of grouping structure would provide students with opportunities to:
    - participate and engage in meaningful discourse?
    - build academic language?
    - access the content of the lesson?
    - take on different roles (facilitator, scribe, presenter, etc.)?
    - build confidence with language use?
- What discipline-specific language and discourse will students need to know and use to successfully collaborate with peers?
- Given students' current content and language knowledge, are students provided with sufficient time to collaborate with peers?

Teacher Tip

Structuring opportunities for collaboration are valuable for teachers and students. Teachers can use collaborative opportunities to gauge student thinking and understanding. The following table provides an overview of the value of structuring opportunities for collaboration.

Teacher Benefits	Student Benefits
Gain valuable information about students' current level of understanding	Talk with peers helps students to develop ideas and build understanding
Observe students construct meaning and build knowledge	Listening to peers' ideas can inform/develop current understanding
Gather evidence to inform future lessons	Supports language development and evidence-based reasoning

Example

The following example illustrates how one teacher, Mr. Dominguez, uses discourse and collaboration to support his EL students' content and language learning.

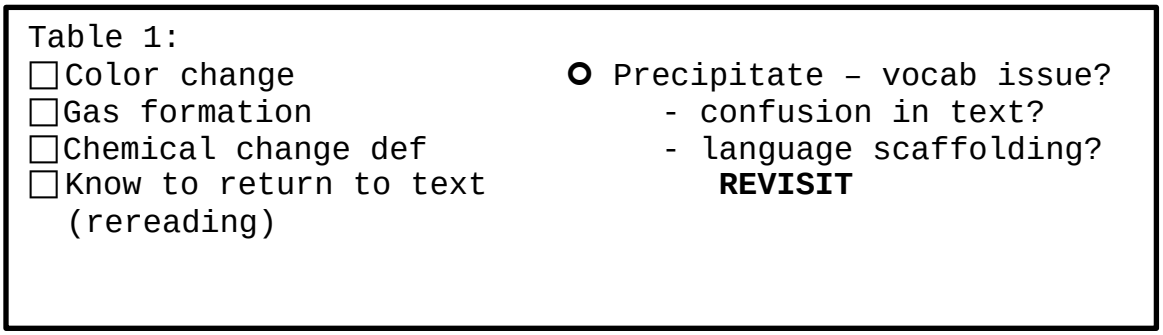
Mr. Dominguez has engaged his chemistry class in a series of lessons about chemical reactions. As part of today's lesson, Mr. Dominguez has asked the class to read a text about chemical reactions. At this point in the lesson, students have read and annotated the text. Mr. Dominguez expects students to understand the clues, or indicators, that will help them determine if a chemical reaction has occurred (color change, change in odor, formation of a precipitate, change in temperature, formation of gases).

To begin the discussion, Mr. Dominguez conducts a short science demonstration. Students observe what happens when he adds two different liquids to a beaker. When the demonstration is over, Mr. Dominguez asks, "How do you know if a chemical reaction took place?"

Mr. Dominguez directs students to discuss in their table groups and refer to the text they have just read. Mr. Dominguez walks around the classroom, listening to students' table group conversations.

> **Student A:** What do you guys think? How do we know if there was a chemical reaction?
> **Student B:** Hmm. Well, when he mixed the liquids, there was a change in color and…
> **Student C:** and we saw that the stuff bubbled up, out of the cylinder.
> **Teacher:** Say more about change in color and stuff bubbling up.
> **Student A:** Yeah, so I'm looking at the article we read, and I notice that those are two things that were mentioned as evidence that a chemical reaction occurred.
> **Teacher:** Mmm-hmm.
> **Student C:** Well, when stuff bubbles up it means that the two liquids you put together are reacting. And that is evidence of a chemical change. Especially because it is not the only evidence, right?
> **Student B:** Yeah – I mentioned the color because that's something we saw right away. The stuff bubbled and the color changed. We read here on page 15 that chemical change occurs because the composition of substances has changed. And they change when bonds break.
> **Student A:** How about precipitate? What is that?
> **Student B:** I'm not sure.
> **Student C:** What page is that on?

Mr. Dominguez carries a clipboard and takes the following notes as he listens to students discuss with each other.



In this example, Mr. Dominguez set up a learning situation that aimed to connect students' understanding of chemical reactions from multiple sources (text and demonstration). He structured an opportunity for students to talk to each other before bringing them all together for a whole group discussion. As students talked with each other, Mr. Dominguez gathered evidence of students' developing understanding. This information was invaluable because he understood where students were in their thinking as well as what he needed to clarify and address during the whole group discussion.

Final Note

When observing students engaged in lesson activities, especially during collaboration and peer and small group discussions, teachers should focus on students' meaning-making processes–reasoning, comprehension, and communication of concepts and the connections between them–and not their use of imperfect language. Accuracy and precision in language are necessary in certain instances in a lesson (e.g., using correct vocabulary, final work products). However, in the process of learning, teachers may wish to encourage EL students to use language approximations in support of their content development. Teachers should take into consideration the moments when it may be helpful to accept imperfect language use and those when it may be helpful or appropriate to cue or model specific language features that require accuracy in a lesson.

PRINCIPLES IN ACTION: ANNOTATED EXAMPLE

The following classroom example illustrates the application of high-leverage principles described in this resource. The classroom lesson in the following vignette is designed for EL students.[9] The classroom teacher, Ms. Okonjo, has planned a lesson that focuses on supporting her EL students as they learn content and develop language. In this annotated vignette we have drawn attention to the ways that Ms. Okonjo:

- explicitly addresses word-, sentence-, and discourse-level academic language demands throughout the lesson;
- structures opportunities to build upon students' background knowledge;
- designs multiple opportunities for students to engage in listening, speaking, reading, and writing;
- provides appropriate scaffolds to support students' content and language development;
- plans meaningful tasks where students engage in discourse;
- creates strategic collaborative grouping arrangements; and
- gathers evidence of learning.

While these principles are addressed separately for the purposes of annotation, it is important to note that, in actuality, they are highly interrelated and integrated throughout the flow of a lesson. Effective instruction for EL students requires strategically designed learning and language opportunities that incorporate elements of many, and at times, all of these principles-addressing language demands, building on students' background knowledge, scaffolding learning opportunities that integrate all language modalities, and structured collaboration.

[9] California Department of Education. (2015). *Snapshot Collection of the English Language Arts/ English Language Development Framework for California Public Schools Kindergarten Through Grade Twelve.* Sacramento, CA: California Department of Education.

Developing and Defending an Argument in an Eight-Grade ELA/Literacy Classroom with EL Students

P2: Building upon students' prior content knowledge and funds of knowledge

P3: Structured opportunities for speaking and listening

P1: Addressing word- and sentence-level academic language demands

P3: Using integrated listening and speaking opportunities to scaffold academic language development

P1: Addressing word- and sentence-level academic language demands

P3: Students read a short article to identify unfamiliar terms and phrases. They use these terms to collectively develop and discuss student-created explanations

P1: Addressing word-, sentence-, and discourse-level (discourse connectors) academic language demands

At the beginning of class one day, Ms. Okonjo asks her students the following question, which she has also posted on the SMART board:
Should our democracy allow schools to punish students for off-campus cyberbullying?

She has her students briefly discuss their initial reactions to the question in their table groups and explains that today they will read an article on cyberbullying that includes two arguments: one in favor and one against allowing schools to punish students for off-campus cyberbullying.

Ms. Okonjo writes three key words from the question: democracy, off-campus, and cyberbullying on the board and asks the students to discuss what they know about each of these terms and then jot down a list of words associated with each term. After asking a few students to report out on what their groups generated, she acknowledges students' understandings and tells them that they are going to learn more about the terms in an article they will read.

First, Ms. Okonjo asks the students to read the short article individually, circling any words or phrases they find are unclear. She also asks students to place a question mark next to longer passages that they need clarification about. After the first reading, she asks students to work together in table groups to help one another clarify the terms and ideas. Next, she guides the whole class in creating a list of unfamiliar terms with explanations for each, using an online collaborative document program (projected via the document camera). Students will be able to refer to this online word bank later and will also be able to collectively refine various terms' explanations over time.

Once they have discussed unfamiliar terms and phrases, the class collaboratively deconstructs a few complicated sentences selected by the students. For example, students analyze the first sentence:

"Although schools have a duty to protect the safety and well-being of their students, much of this *cyberbullying* takes place off-campus, outside of school hours."

Structure: Type of Clause? How I know?	Text Excerpt: Broken Into Clauses	Meaning: What It Means in My Own Words
Dependent, it starts with although, so it depends on the other part of the sentence	*Although* schools have a duty to protect the safety and well-being of their students	Schools are supposed to take care of their students. But . . . The word *although* lets us know that cyberbullying might still be happening.

Note: All student groupings were strategically created by Ms. Okonjo.

P1: Students are expected to perform the academic language functions of analyzing and comparing

P4: Students collaborate in groups and engage in discourse on topic

P2: Building upon and acknowledging students' understandings

P4: Students collaborate and learn from their peers

P3: Students learn and use annotation as a strategy and scaffold (circling words and creating list of unfamiliar words)

P4: Students work together in table groups as well as an online collaborative document program

P1: Addressing sentence-level academic language demands

P4: Working collaboratively to deconstruct complicated sentences

P3: Scaffolding by visually displaying students' thinking and discourse

Independent, even if I take the other part of the sentence away it is still a complete sentence.	much of this cyberbullying takes place off-campus, outside of school hours.	Students use texting, Facebook, and other technology to bully others, but they do it afterschool. So, cyberbullying is still happening.	

P1: Addressing language function of arguments and discourse-level academic language demands (i.e., constructing arguments)

P4: Strategic grouping to support students' content and language development and confidence constructing arguments

Ms. Okonjo then asks the students to go back into the text and to work in their table groups to identify the arguments for and against schools punishing students for off-campus cyberbullying. She tells them to take turns reading the paragraphs and to discuss whether they detect any arguments for or against whether the school should take action. She also tells them that they must come to a consensus on these statements. Once they have, each group member should write the same thing in his or her notetaking sheet. This, she reminds them, requires them to discuss their ideas extensively first so that they can be concise and precise when they record their ideas in their notes. Ms. Okonjo provides a notetaking guide for students to record their evidence.

P3: Opportunities for integrated reading, speaking, and listening

Should our democracy allow schools to punish students for off-campus cyberbullying?	
Reasons and Evidence For	Reasons and Evidence Against

P3: Notetaking as scaffold

P4: Teacher uses strategic grouping to gather evidence of content and language learning

As the students work in their groups, Ms. Okonjo circulates around the room so that she can listen in on the conversations, answer questions, provide *just-in-time* scaffolding, and more generally observe how the students are working together.

P3: Teacher gathers evidence to provide feedback and just-in-time scaffolding

P1: Students use language functions of reasoning and evidence to show that they understand the text and content of the lesson

P1: Supporting development of language functions

P3: Integrated reading, writing, listening, and speaking opportunities to further develop arguments

After giving students time to locate arguments for and against punishing students for off-campus cyberbullying, Ms. Okonjo refocuses the students on the deliberation question and explains that the students will be assigned to one of two teams: Team A, which will be in favor of the school exacting punishment, and Team B, which will be against such punishment. Each team will be responsible for selecting the most compelling reasons and evidence for its assigned position. Next, she provides time for the students to reread the article and identify the most compelling reasons to support the school taking action, along with powerful quotes to enhance these reasons. To ensure maximum participation, she asks every one on each team to prepare a presentation of at least one reason.

P4: Structures two teams to elicit discussion and debate

P2: Building on students' prior knowledge to select compelling reasons and evidence

As each member presents a compelling reason to his or her team, the other team members listen and record notes. Although the team members who are listening can ask questions if they do not understand, they cannot argue. Once all team members have shared amongst themselves, then each team presents its argument. To ensure understanding, the teams then switch roles, and defend the other team's most compelling reasons, adding at least one additional reason to support the other team's position. Then Ms. Okonjo asks students to move from their assigned team roles and deliberate as a group, using their notes. Afterwards, each

P4: Strategic grouping to support and gather evidence of students' content learning and ability to construct arguments

P1 & P3: Using evidence from text to support and write

arguments **P2:** Build upon students' personal experiences	student selects the position he or she now agrees with and, using evidence from the text for support, writes a brief paragraph to explain why. As the students discuss their paragraphs in small groups, Ms. Okonjo circulates around the room, checking students' paragraphs and providing support to those who need it. Following the class discussion, the students reflect on their oral contributions to group discussions in their journals. On another day, the students co-construct a letter to school board to express their varied opinions. To support their positions, they include the compelling reasons they identified, evidence from the text they read, and any relevant personal experiences.	**P3:** Providing just-in-time scaffolding **P3:** Write letters to schoolboard **P4:** Collaborate to co-construct letters

LITERATURE BASE FOR PRINCIPLES

Below is the literature base that informed each principle, organized by principle. The references marked with an asterisk (*) denote references that are free to access and download.

Principle	References
Key literature addressing all core principles outlined below	*Alvarez, L., Ananda, S., Walqui, A., Sato, E., & Rabinowitz, S. (2014). Focusing formative assessment on the needs of English language learners. *San Francisco: WestEd*. *August, D., Fenner, D. S., Bright, A. (2014). Scaffolding instruction for ELLs: Resource guide for mathematics. *Retrieved from New York State Education Department, Engage NY website: https://www.engageny.org/resource/scaffolding-instruction-english-language-learners-resource-guides-english-language-arts-and* *August, D., Fenner, D. S., Snyder, S. (2014). Scaffolding instruction for ELLs: Resource guide for ELA. *Retrieved from New York State Education Department, Engage NY website: https://www.engageny.org/resource/scaffolding-instruction-english-language-learners-resource-guides-english-language-arts-and* *Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C. P., Morris, J., & Newman-Gonchar, R. (2014). Teaching academic content and literacy to English learners in elementary and middle school (NCEE 2014-4012).*Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, US Department of Education. Retrieved from the NCEE website: http://ies. ed. gov/ncee/wwc/publications_reviews. aspx*. *Center for Applied Linguistics. (2013). Principles of Effective Instruction for English Learners. *Washington, D.C.: Author* *Colorin Colorado. (2007). *How to Develop a Lesson Plan that Includes ELLs*. Retrieved from: http://www.colorincolorado.org/educators/content/lessonplan/ *Duguay, A., Massoud, L., Tabaku, L., Himmel, J., & Sugarman, J. (2013). *Implementing the Common Core for English learners: Responses to common questions* (Practitioner Brief). Washington, DC: Center for Applied Linguistics. *Haynes, M. (2012). *The role of language and literacy in college- and career-ready standards: Rethinking policy and practice in support of English language learners*. Washington, DC: Alliance for Excellent Education. *National Research Council. (2013, April). Appendix D: All standards, all students. *Next Generation Science Standards*. Retrieved from: http://www.nextgenscience.org/sites/default/files/Appendix%20D%20Diversity%20and%20Equity%206-14-13.pdf *TESOL International Association. (2013). Overview of the common core state standards Initiatives for ELLs. *Alexandria, VA: Author*. *US Department of Education. (2015). English Learner Toolkit for State and Local Education Agencies (SEAs and LEAs). US Department of Education. *Retrieved*

	from http://www2.ed.gov/about/offices/list/oela/english-learner-toolkit/eltoolkit.pdf
1. Understand and address the academic language demands of the lesson	*Anstrom, K., DiCerbo, P., Butler, F., Katz, A., Millet, J., & Rivera, C. (2010). *A review of the literature on academic English: Implications for K-12 English language learners*. Arlington, VA: The George Washington University Center for Equity and Excellence in Education. Bailey, A. L. (2007). *The language demands of school: Putting academic English to the test*. New Haven, CT: Yale University Press. Bailey, A. L., & Heritage, M. (2014). The role of language learning progressions in improved instruction and assessment of English language learners. *TESOL Quarterly*, *48*(3), 480-506. Bailey, A. L., Butler, F. A., & Sato, E. (2007). Standards-to-standards linkage under Title III: Exploring common language demands in ELD and science standards. *Applied Measurement of Education*, *20*(1), 53–78. Bailey, F., Burkett, B., & Freeman, D. (2010). The mediating role of language in teaching and learning: A classroom perspective. In B. Spolsky & F. M. Hult (Eds.), *The handbook of educational linguistics* (pp. 606–625). West Sussex, England: Blackwell. Brown, B. A., & Spang, E. (2008). *Double talk: Synthesizing everyday and science language in the classroom*. Science Education, 92, 708-732. *Bunch, G. C., Kibler, A., & Pimentel, S. (2012, January). *Realizing opportunities for English learners in the Common Core English Language Arts and Disciplinary Literacy Standards*. Paper presented at the Understanding Language Conference at Stanford University, Stanford, CA. Christie, F. (1985). Language and schooling. In S. Tuchudi (Ed.), *Language, schooling, and society* (pp. 21–40). Upper Montclair, NJ: Boynton/Cook Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California State Department of Education (Ed.), *Schooling and language minority students: A theoretical framework* (pp. 3–49). Los Angeles, CA: National Dissemination and Assessment Center. *Fillmore, L. W., & Fillmore, C. J. (2012). What Does Text Complexity Mean for English Learners and Language Minority Students?. *Understanding language: Language, literacy, and learning in the content areas*, 64-74. Gee, J. P. (2005). Language in the science classroom: Academic social languages as the heart of school-based literacy. In R. Yerrick & W. Roth (Eds.), *Establishing scientific classroom discourse communities: Multiple voices of teaching and learning research* (pp. 19–37). Mahwah, NJ: Lawrence Erlbaum. Gibbons, P. (2006). *Bridging discourses in the ESL classroom*. New York: Continuum Press. *Haynes, M. (2012). *The role of language and literacy in college- and career-ready standards: Rethinking policy and practice in support of English language learners*. Washington, DC: Alliance for Excellent Education Heritage, M., Silva, N., & Pierce, M. (2007). Academic language: A view from the classroom. In A.L. Bailey, (Ed.), *Language demands of students learning English in school: Putting academic language to the test* (pp. 171-210). New Haven, CT: Yale University Press. Hill, J. D., & Miller, K. B. (2013). *Classroom instruction that works with English language learners*. ASCD. Martiniello, M. (2008). Language and the performance of English language learners in math word problems. *Harvard Educational Review, 78*(2), 333-368.

	*Moschkovich, J. (2012, January). *Mathematics, the Common Core and language: Recommendations for mathematics instruction for ELs aligned with the Common Core*. Paper presented at the Understanding Language Conference at Stanford University, Stanford, CA. *Quinn, H., Lee, O., & Valdés, G. (2012). Language demands and opportunities in relation to Next Generation Science Standards for English language learners: What teachers need to know. *Commissioned Papers on Language and Literacy Issues in the Common Core State Standards and Next Generation Science Standards*, *94*, 32. *Ranney, S., Schornack, M., Maquire, C., & Dillard-Paltrineri, B. (2014). Academic language demands: Texts, tasks, and levels of language. MinneTESOL Journal. Retrieved from http://minnetesoljournal.org/spring-2014/academic-language-demands-texts-tasks-and-levels-of-language *Santos, M., Darling-Hammond, L., & Cheuk, T. (2012). Teacher development to support English language learners in the context of common core state standards. In *Understanding Language Conference, Stanford University, California.* Snow, C. E., & Uccelli, P. (2009). The challenge of academic language. In D. R. Olson & N. Torrance (Eds.), T*he Cambridge handbook of literacy* (pp. 112–133). New York, NY: Cambridge University Press. Mitchell, K. (2016). *Common Core, Bilingual and English Language Learners: A Resource for Educators*, edited by G. Valdés, K. Menken, and M. Castro: Philadelphia, PA: Caslon Publishing. *van Lier, L., & Walqui, A. (2012). Language and the common core state standards. *Commissioned Papers on Language and Literacy Issues in the Common Core State Standards and Next Generation Science Standards*, *94*, 44. *Walqui, A. (2012). *Theoretical and Pedagogical Shifts in the Design and Enactment of Learning*. Understanding Language Initiative. Retrieved from http://ell.stanford.edu
2. Build upon students' background knowledge	Abedi, J. (2011). Assessing English language learners: Critical issues. In M. Basterra, E. Trumbull, & G. Solano-Flores (Eds.), *Cultural validity in assessment: Addressing linguistic and cultural diversity* (pp. 49–71). New York: Routledge. Bransford, J., Brown, A., & Cocking, R. (Eds.). (2000). *How people learn. Brain, mind experience, and school*. Washington, DC: National Academy Press. Esteban-Guitart, M., & Moll, L. C. (2014). Funds of identity: A new concept based on the funds of knowledge approach. *Culture & Psychology*, *20*(1), 31-48. Gandara, P. C., & Contreras, F. (2009). *The Latino education crisis: The consequences of failed social policies*. Harvard University Press. González, N. (2005). Beyond culture: The hybridity of funds of knowledge. *Funds of knowledge: Theorizing practices in households, communities, and classrooms*, 29-46. Greenfield, P. M. (2009). Linking social change and developmental change: Shifting pathways of human development. *Developmental Psychology*, 45(2), 401-418. Heath, S.B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. Cambridge, UK: Cambridge University Press. Moll, L. C. (2013). *LS Vygotsky and education*. Routledge. Moll, L. C., & Gonzalez, N. (1997). Teachers as social scientists: Learning about culture from household research. In *Race, ethnicity, and multiculturalism: Policy and practice* (Vol. 1, pp. 89-114) Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory*

	into practice, *31*(2), 132-141. Moll, L. C., Soto-Santiago, S. L., & Schwartz, L. (2013). Funds of knowledge in changing communities. *International Handbook of Research on Children's Literacy, Learning, and Culture*, 172-183. Moschkovich, J. N., & Brenner, M. E. (2000). Integrating a naturalistic paradigm into research on mathematics and science cognition and learning. *Handbook of research design in mathematics and science education*, 457-486. *Quinn, H., Lee, O., & Valdés, G. (2012). Language demands and opportunities in relation to Next Generation Science Standards for English language learners: What teachers need to know. *Commissioned Papers on Language and Literacy Issues in the Common Core State Standards and Next Generation Science Standards*, *94*, 32. Rogoff, B. (2003). *The cultural nature of human development.* Oxford, UK: Oxford University Press. Shavelson, R. J. & Kurpius, A. (2012). Reflections on learning progressions. In A. C. Alonzo & A. W. Gotwals (Eds.). Learning progressions in science. Rotterdam, The Netherlands: Sense Publishers. Tobiason, G., Chang, S., Heritage, M., & Jones, B. (2014). *Building blocks, learning goals, and success criteria: Planning instruction and formative assessment for math standards*. Los Angeles: University of California, National Center for Research on Evaluation, Standards and Student Testing. Retrieved January 20, 2015, from http://csaionline.org/sites/default/files/resource/1743/BuildingBlocks_0.pdf. Valdés, G., Capitelli, S., & Alvarez, L. (2010). *Latino Children Learning English: Steps in the Journey.* New York: Teachers College Press. *van Lier, L., & Walqui, A. (2012). Language and the common core state standards. *Commissioned Papers on Language and Literacy Issues in the Common Core State Standards and Next Generation Science Standards*, *94*, 44. Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press. *Walqui, A., & Heritage, M. (2012). Instruction for diverse groups of English language learners. *Commissioned papers on language and literacy issues in the common core state standards and next generation science standards*, *94*, 94. Zipin, L. (2009). Dark funds of knowledge, deep funds of pedagogy: Exploring boundaries between lifeworlds and schools. *Discourse: Studies in the Cultural Politics of Education*, *30*(3), 317-331.
3. Design and scaffold learning opportunities in every lesson that integrate listening, speaking, reading, and writing domains	Bravo, M. A., & Cervetti, G. N. (2014). Attending to the Language and Literacy Needs of English Learners in Science. *Equity & Excellence in Education*, *47*(2), 230-245. de Oliveira, L. C., Klassen, M., & Gilmetdinova, A. (2014). Scaffolding to support English language learners in a kindergarten classroom. *Cross-cultural considerations in the education of young immigrant learners*, 1-16. *Gibbons, P. (2002). *Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom.* Portsmouth, NH: Heinemann. Hammond, J., & Gibbons, P. (2005) Putting scaffolding to work: The contribution of scaffolding in articulating ESL education. *Prospect*, 20(1), 6–30. *Short, D. J., & Fitzsimmons, S. (2007). *Double the work: Challenges and solutions to acquiring language and academic literacy for adolescent English language learners - A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education. Walqui, A. & van Lier, L. (2010). Scaffolding the academic success of adolescent English Learners: A pedagogy of promise. San Francisco, CA: WestEd.

	*Walqui, A., & Heritage, M. (2012). Instruction for diverse groups of English language learners. *Commissioned papers on language and literacy issues in the common core state standards and next generation science standards*, *94*, 94.
4. Provide opportunities for student participation through meaningful discourse and structured collaboration	*Alvarez, L., Ananda, S., Walqui, A., Sato, E., & Rabinowitz, S. (2014). Focusing formative assessment on the needs of English language learners. *San Francisco: WestEd*. Cazden, C. B. (2001). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann. Gee, J. P. (2007). Reflections on assessment from a sociocultural-situational perspective. In P. Moss (Ed.), *Evidence in decision making: Yearbook of the National Society for the Study of Education* (Vol. 106, pp. 362– 375). Malden, MA: Blackwell. *Herman, J. L., & Abedi, J. (2004). *Issues in assessing English language learners' opportunity to learn mathematics* (CSE Tech. Rep. No. 633). Los Angeles: University of California, Center for the Study of Evaluation/National Center for Research on Evaluation, Standards, and Student Testing. Meskill, C. (2010). Moment-by-moment formative assessment of second language development. In H. L. Andrade & C. J. Cizek (Eds.), *Handbook of formative assessment* (pp. 198–211). New York: Routledge. *Moschkovich, J. (2012, January). Mathematics, the Common Core and language: Recommendations for mathematics instruction for ELs aligned with the Common Core. *Paper presented at the Understanding Language Conference at Stanford University,* Stanford, CA. Moschkovich, J. N. (2007a). Beyond words to mathematical content: Assessing English learners in the mathematics classroom. In A. Schoenfeld (Ed.), *Assessing Mathematical Proficiency* (345-352). New York, NY: Cambridge University Press. Ruiz-Primo, M. A. and Furtak, E. M. (2006). Informal formative assessment and scientific inquiry: Exploring teachers' practices and student learning. *Educational Assessment*, 11(3 & 4), 205-235. *Santos, M., Darling-Hammond, L., & Cheuk, T. (2012). *Teacher development to support English language learners in the context of Common Core State Standards.* Palo Alto, CA: Stanford University, Understanding Language Initiative. *Sato, E., Lagunoff, R., & Yeagley, P. (2011, April). Academic language and the Common Core State Standards: Implications for state and district implementation and supporting the achievement of English language learners. *Paper presented at the annual meeting of the American Educational Research Association,* New Orleans, LA. Wiliam, D., & Leahy, S. (2015). Embedding formative assessment: Practical techniques for K-12 classrooms. West Palm Beach, FL: Learning Sciences International.