



USET Series: Principles for English Learners

By: Milo Maughan | May 2025

INTRODUCTION

As of October 2023, about one in ten K-12 students in Utah are English Learners (ELs). They are one of the fastest growing student populations in U.S. public schools. As the EL student population continues to increase, educators across the state need to address and meet the demands of our state's rapidly growing EL population. To succeed in this challenge, teachers need appropriate tools and knowledge to support student's achievement.

In 2017, The US Department of Education in partnership with WestEd and the National Center for Research on Evaluation, Standards, and Student Testing published a resource that presented evidence-based instructional strategies to help EL Students become proficient in English and achieve challenging state academic standards. The resource summarizes high-leverage learning and teaching principles that can be incorporated into daily instructional lesson plans and routines. These five principles represent a synthesis of literature on best instructional strategies for EL students:

1. **Determine and address the [academic language demands](#) of the lesson**
2. **Build upon [student's background knowledge](#)**
3. **Design and scaffold deeper learning tasks that integrate [listening, speaking, reading and writing domains](#)**
4. **Provide opportunities for student participation through extended [oral discourse and structured collaboration](#)**
5. **Use [formative assessments](#) to support both language development and content goals.**

This Utah Science Education Tool (USET) Series focuses on each of these five principles through the lens of the Utah Science and Engineering Education (SEEd) Standards and phenomena-based, three-dimensional teaching and learning. Each USET focuses on one of the principles by providing background information, giving examples of what teachers and students do in the classroom, sharing a rubric for self-assessment and reflection, and listing resources for further learning.

Research has found what is good for EL learners is good for all students, but what is adequate for a general population of students may not meet the needs of EL learners. The five high-leverage principles described in this series are relevant for all students but are particularly important Principles for English Learner (PEL) instruction. These principles are "high leverage" because they synthesize the work of leading scholars and educators and reflect basic practices that can improve teaching and learning for EL students across all content areas.

RESOURCE

[High-Leverage Principles of Effective Instruction for English Learners](#)



PEL: Academic Language Demands

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BACKGROUND

Research has found what is good for English Language (EL) learners is good for all students, but what is adequate for a general population of students may not meet the needs of EL learners. The five high-leverage principles described in this series are relevant for all students but are particularly important Principles for English Learner (PEL) instruction. The first high-leverage principle is to **Determine and Address the Academic Language Demands of the Lesson.**

Understanding Academic Language

Academic language is crucial for all students to succeed in school. It encompasses the specific vocabulary, sentence structures, and ways of communicating that are used in academic settings. For teachers, this means carefully examining their lesson materials to pinpoint the language demands, including the purpose of the language (like explaining or analyzing) and its specific features (such as technical terms and complex sentences). Understanding how these language elements impact EL students' learning, for example, the specialized vocabulary in a science lesson, is a key step in effective instruction.

Supporting Language Development in the Science Classroom

To help EL students navigate academic language in science, teachers can proactively adapt their lessons and provide explicit language instruction. This involves considering the accessibility of the language used in all aspects of the lesson. Furthermore, employing scaffolding techniques is vital. Strategies like demonstrating how to use language, offering sentence starters, and simplifying complicated texts can significantly aid comprehension and production of academic language. The ultimate aim is to empower students to confidently and effectively use academic language, allowing them to fully engage with their subjects and clearly demonstrate their knowledge.

CLASSROOM APPLICATION

When observing a classroom in which the teacher has determined and addressed the academic language demands of the lesson, the following **student actions** should be visible:

- Students actively use key scientific vocabulary in discussions and writing.
- Students explain scientific concepts using precise, discipline-specific language.
- Students engage in scientific discourse, including making claims, providing evidence, and reasoning logically.
- Students demonstrate understanding of complex sentence structures, such as cause-effect relationships or conditional statements in scientific explanations.
- Students ask clarifying questions about unfamiliar academic language.

- Students use graphic organizers, sentence frames, and structured outlines to support their scientific writing and explanations.
- Students collaborate in structured discussions where they practice using academic language to describe, compare, and analyze scientific phenomena.

To determine and address academic language demands of the lesson, **teachers plan by**

- Identifying key academic language demands in lesson materials, including vocabulary, sentence structures, and discourse patterns specific to the science content.
- Teaching language features and functions integrated together with the content.
- Providing scaffolds such as sentence starters, graphic organizers, and guided discussions to support students in using scientific language.

IMPLEMENTATION RUBRIC

Basic	Emerging	Effective	Exceptional
Educators identify some basic vocabulary or make limited attempts to assess EL understanding.	Educators identify basic vocabulary, include minimal support inconsistently, and make limited attempts to assess EL understanding.	Educators identify key academic language demands, include general language supports, and checks for EL understanding.	Educators comprehensively identifies academic demands, implements targeted strategies and supports, and assesses EL understanding making active adjustments as needed.

RESOURCES

[High-Leverage Principles of Effective Instruction for English Learners](#)

[USET 19 - PEL: Student's Background Knowledge](#)

[USET 20 - PEL: Listening, Speaking, Reading, and Writing Tasks](#)

[USET 21 - PEL: Oral Discourse and Structured Collaboration](#)

[USET 22 - PEL: Formative Assessments](#)

[STEM Teaching Tool #41 - Prompts for Integrating Crosscutting Concepts Into Assessment and Instruction](#)



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PEL: Student's Background Knowledge

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The Importance of Student's Background Knowledge

The main purpose of **building upon students' background knowledge** is to make instruction relevant and meaningful for all Students. Background knowledge includes academic/content knowledge, educational experiences, language development, as well as cultural knowledge, values, and practices. EL students in particular have diverse backgrounds including different educational experiences, home languages, and cultural practices. By connecting teaching and learning opportunities to students' prior content knowledge, home and cultural experiences, teachers can increase student engagement, participation, and improve teacher-student relationships.

Building Upon Student's Background Knowledge in Science

In the science classroom, this principle specifically can be applied by selecting relevant phenomena that their students can connect and interact with to have questions about. For instance, when teaching about ecosystems, a teacher could start by discussing students' experiences with and the questions that they have about local environments. For a unit on weather, teachers can ask students about weather patterns in their native countries and relate that to how weather works in general.

CLASSROOM APPLICATION

When observing a classroom in which the teacher has built upon student's background knowledge, the following **student actions** should be visible:

- Students are engaging with culturally relevant phenomena.
- Students are able to use their background knowledge in class discussions.
- Students are sharing their cultural backgrounds and connections to phenomena.
- Students are communicating through reading, writing, speaking, and listening.
- Students ask questions that connect new information to their existing understanding.

To build upon student’s background knowledge, **teachers plan by**

- Selecting phenomena that students of multiple backgrounds can interact with and have questions about.
- Assessing students' background knowledge.
- Making connections to prior learning through pre-tests, KWL charts, and think-pair-share activities.
- Considering and addressing students’ background knowledge could contribute to some misconceptions and preconceptions of the lesson’s content.

IMPLEMENTATION RUBRIC

Basic	Emerging	Effective	Exceptional
Educators teach content disconnected from the students’ background knowledge or previous experiences.	Educators attempt to assess students’ background knowledge and inconsistently connects learning to student’s previous experiences.	Educators integrate students’ background knowledge into the learning experience, meaningfully building upon previous knowledge.	Educators comprehensively integrate students’s background knowledge and instruction is highly adaptive to students’ previous experiences and knowledge.
Educators do not use phenomena to drive the learning experience.	Educators use phenomena, but they are not culturally relevant.	Educators use culturally relevant phenomena which drives the learning experience.	Educators use culturally relevant phenomena that students of multiple backgrounds actively want to engage with.

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PEL: Listening, Speaking, Reading, and Writing Tasks

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Four Language Domains

ELs, like all students, need to engage in challenging and meaningful tasks to develop deep conceptual understandings and critical thinking skills. These tasks can be linguistically demanding, requiring complex language reception and production. This poses a challenge and an opportunity for ELs to deepen their language development. Teachers can provide strategic supports, known as scaffolding, to facilitate ELs' engagement without reducing the content quality and rigor of the tasks. *By integrating all four language domains (listening, speaking, reading, and writing) into every lesson and using scaffolding techniques, teachers can enable ELs to fully participate and achieve lesson goals.*

Reading, Writing, Listening and Speaking in Science

Integrating reading, writing, listening, and speaking activities into science lessons allows ELs to practice and deepen their abilities in all four domains and to benefit from these multiple channels in their learning. Teachers can use each domain to support content learning goals, such as listening to instructions, participating in discussions, reading texts, and writing. Language-specific scaffolds support ELs in navigating academic language demands as they engage with, comprehend, and communicate specialized disciplinary knowledge and skills.

CLASSROOM APPLICATION

When observing a classroom in which the teacher has designed and scaffolded deeper learning tasks that integrate listening, speaking, reading and writing domains, the following **student actions** should be visible:

- All students listen, speak, read, and write in every lesson.
- Students engage in discussions using sentence starters and other discussion scaffolds as needed.
- Students engaged with varied texts making use of annotations and other reading comprehension activities as needed.
- Students pair up to collaborate together about classroom activities (e.g. discuss concepts, explain solutions, make predictions, give feedback, etc)
- Students are communicating through reading, writing, speaking, and listening.
- Students effectively collaborate and communicate in group tasks

To design and scaffold deeper learning tasks that integrate listening, speaking, reading and writing domains, **teachers plan by**

- Designing lessons that include activities in listening, speaking, reading, and writing.
- Accompany oral directions or instructions with written or visual supports.
- Use sentence frames to support student discussions.
- Model different processes expected for students to perform (e.g. annotating a text, the writing process, create graphic organizers, etc).
- Provide and scaffold many opportunities for students to discuss content and learning orally.
- Create small groups with students at diverse levels of language development.
- Provide language-specific scaffolds (e.g. visuals and gestures, graphic organizers, provide templates and/or exemplars, etc) to support ELs in navigating academic language demands.

IMPLEMENTATION RUBRIC

Basic	Emerging	Effective	Exceptional
Educators use only one of the language domains (listening, speaking, reading, writing) into their lessons.	Educators utilize two or three language domains (listening, speaking, reading, writing) into their lessons.	Educators integrate all four language domains (listening, speaking, reading, writing) into every lesson.	Educators integrate all four language domains (listening, speaking, reading, writing) effectively into every lesson with effective scaffolds as needed.

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PEL: Oral Discourse and Structured Collaboration

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Fostering Language Development Through Collaboration

Creating structured collaborative opportunities is essential for English Learners (ELs) to actively use language in meaningful ways. Through carefully designed lessons that incorporate extended discourse, students can work together to solve problems, build explanations, justify their reasoning, and express their thinking. Teachers can facilitate this process by providing conversation prompts and modeling effective communication strategies. This approach allows ELs to construct understanding, demonstrate their knowledge, and simultaneously develop their language proficiency in a supportive environment.

Collaborative Learning in Science

In a phenomena-based, three-dimensional science classroom, collaborative learning is a natural and powerful instructional strategy. As students investigate phenomena, they can engage in small group discussions to share observations, analyze evidence, and construct explanations using scientific language and reasoning. Teachers can further structure this collaboration through specific activities, talk protocols, and assigned roles within groups to ensure active participation from all students. By providing clear guidelines and engaging tasks that promote deep learning, teachers can leverage collaborative interactions to gain insights into student understanding and foster both content knowledge and language acquisition.

CLASSROOM APPLICATION

When observing a classroom in which the teacher provides opportunities for student participation through extended oral discourse and structured collaboration, the following **student actions** should be visible:

- Students readily engage in both small group and whole class discussions about science content.
- Students explain phenomena by developing and applying the Disciplinary Core Ideas and Crosscutting Concepts through the use of the Science and Engineering Practices.

- Students 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.
- Students listen attentively to their peers and build upon their ideas, showing respect for diverse perspectives and collaborative knowledge construction.
- Students take on different speaking roles and follow established norms when collaborating and communicating with peers in both small and large groups.

To provide opportunities for student participation through extended oral discourse and structured collaboration, **teachers plan by**

- Providing time in lessons for students to engage in oral discourse and structured collaboration.
- Construct conversation prompts to scaffold student discussion.
- Incorporating various group structures, ranging from pairs and small groups to the whole class. Groupings should be dynamic and depend on the tasks and learning goals.
- Developing and establishing talk protocols to encourage discourse through structured collaboration.
- Establish collaboration guidelines including norms and speaking roles. Ensure that EL students have chances to take on different roles in various conversations.

IMPLEMENTATION RUBRIC

Basic	Emerging	Effective	Exceptional
Students have minimal opportunities for discourse and collaboration. Discussions are unfocused and lack depth.	Students have some opportunities for discourse and collaboration. Discussions lack scaffolds and content is inconsistent.	Students frequently engage in discourse and collaboration during instruction. Discussions are structured and focus on quality science content.	Discourse and collaboration are seamlessly integrated into classroom instruction. Students fully follow collaboration guidelines through their in-depth science discussions.

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PEL: Formative Assessments

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Integrating Formative Assessment for All Learners

Formative assessment is an instructional process that integrates together the teaching and the learning. This approach involves establishing clear lesson learning goals and success criteria, planning activities to gather evidence of student learning, analyzing this evidence to evaluate student progress, taking pedagogical action based on the evidence, and actively involving students in the assessment process. For ELs, formative assessment should target both content and language learning goals, while also considering their English language development status.

Science-Specific Formative Assessment for ELs

In the context of science, this principle suggests that teachers should design learning goals and success criteria that consider both science content and the language skills needed to understand and communicate that content. Lesson activities should provide opportunities for EL students to develop and demonstrate their understanding of science concepts, as well as their ability to use scientific language. Teachers should analyze student work, considering their prior knowledge, language development, and cultural background, to differentiate between challenges related to content and those related to language demands. Based on this analysis, teachers can provide targeted feedback and scaffolding to support student learning, while encouraging students to use language approximations in their reasoning, comprehension, and communication of scientific concepts.

CLASSROOM APPLICATION

When observing a classroom in which the teacher uses formative assessment to support both language development and content goals, the following **student actions** should be visible:

- Students can explain what they are supposed to learn in the lesson (learning goals) and how they will demonstrate their understanding (success criteria).
- Students actively engage in activities designed to provide evidence of their learning.
- Students have multiple opportunities to provide a demonstration of their learning using a variety of modalities.
- Students participate in peer and self-assessment to evaluate their progress in learning.

To use formative assessments to support both language development and content goals, **teachers plan by**

- Establishing clear language and content learning goals and success criteria.
- Develop lesson activities that provide clear evidence of student learning.
- Creating methods to analyze evidence to evaluate student progress.
- Taking appropriate pedagogical action (making adjustments to instruction) based on student data.
- Create opportunities to involve students in the formative assessment process.

IMPLEMENTATION RUBRIC

Basic	Emerging	Effective	Exceptional
Learning goals are unclear or missing	Learning goals are present, do not address the language needs	Learning goals address content and language needs	Learning goals integrate together content and language needs
Learning activities do not align with goals	Learning activities show some alignment with goals	Learning activities gather evidence of learning	Learning activities clearly reveal student progress
Teaching does not respond to student needs	Teaching responds to student needs ineffectively	Teaching responds to student needs	Teaching is responsive based on assessment data
Assessment is not evident or implement effectively	Student involvement in assessment is limited	Students participate in the assessment process	Active student involvement in assessing their own learning

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[Utah SEEd Core Guides](#) - See Formative Assessments at the end of each standard



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