

What Is The Issue?

Many students are marginalized in school because their everyday language is not recognized or supported. Referring to these students only as "English language learners" diminishes awareness of the rich linguistic resources they bring from their home languages. There are many powerful ways to support emerging bilingual students, including: (1) unpacking the specific language forms of science, (2) translating assessment prompts, (3) allowing students to respond in their home languages, and (4) helping educators better understand and build on what students know.

WHY IT MATTERS TO YOU

- ➤ **Teachers** should use frequent formative assessments of different kinds to bridge students' everyday and disciplinary language practices.
- ➤ **District Staff & PD Providers**should support teachers to prioritize
 understanding the details of student
 thinking first and giving grades second.
- School Leaders should advocate for more low-stakes assessments to (1) support instructional decision-making by teachers and (2) help students understand their learning process and progress.

Things To Consider

- Focus assessment on the learning goal—not on student
 familiarity with a style of discourse. Science contains many uses
 of language that can differ from students' everyday discourses.
 This variability can make assessments inequitable. Tasks designed
 to evaluate students' science learning might unintentionally be
 measuring the similarities of students' discourses to those valued in
 science—and not the specific learning goal itself.
- Help students understand how and why to engage in science discourse. In a scientific argument, the most valued evidence is observed data connected with scientific reasoning. Students' everyday argumentation practices can support science argumentation. The best way to measure student understanding is by making language practices like argumentation explicit and purposeful in both instruction and assessment. Students deserve to know how and why they are engaging in science discourse.
- Routinely practice the entire formative assessment process:

 Design assessments, gather evidence, interpret evidence, and change instruction to meet the needs of emerging bilingual students.

Crafting Equitable Assessment Items

- Have students write the same response multiple ways to develop attention to features of scientific language and their everyday language. Ask, "How could you explain _______ to a younger student?" and "How could you explain ______ to a scientist?"
- Ask students to notice and think critically about the features of everyday and scientific language (i.e., particular varieties of language) afford the speaker.
- Ask students to reflect on their learning and connect to personal and community interests.
- Choose assessment scenarios that are relevant to or experienced by all students, especially international students who haven't grown up in the U.S. <u>Students' reading comprehension also benefits</u> when they have related experiences and background knowledge.
- Emphasize multiple modes of expression of science concepts, such as drawing, sculpture, art, video, or photography. <u>Self-documentation</u> assessments are an excellent approach.
- Ask your ELL department to support you in translating formative assessment questions for emerging bilinguals.
- Take specific language issues into account. See table on the right.

REFLECTION QUESTIONS

- ➤ How can you support students to express their understanding using multiple modes of expression and even multiple languages in your classroom?
- ➤ Have you considered pilot testing your assessments with emerging bilinguals before using them with others?

Science Writing & Language...

...is a highly social activity for generating knowledge—but in school science, the audience is often only the teacher, for purposes of grading.

Assessment Authors Can...

...give assessments a meaningful scientific purpose that connects to students' lives. This allows students to practice science language more authentically.

...uses highly-specific language to achieve precision and clarity. This is sometimes called "scientific" or Tier 3 vocabulary.

...include relevant, taught vocabulary while minimizing reliance on unnecessary, ambiguous, or confusing wording.

..."nests" extra
details within sentences, a process
called nominalization. This adds
clarity to science
writing, but can
also make sentences unwieldy
for young scien-

...avoid overly dense vocabulary and complex sentence structures unless that is the specific goal of the assessment item.

ALSO SEE STEM TEACHING TOOLS:

#16 <u>Informal Assessment</u>

#26 Designing 3D Assessment

#27 Science Learning & ELLs





