

High School Biology Vignette B – Multilingual Learners with Intermediate and Advanced Levels of English Proficiency

As you read the following vignette, consider the following questions and reflect on the factors that influence the teacher and his ability to develop his expertise in supporting English Learners.

Focus Questions:

1. Just as Ms. Smith is frustrated, so are the students in her class. They are not progressing in acquiring the biology knowledge they need to pass the course. What factors do you think are contributing to the student's lack of progress and frustration?
2. Have you experienced similar situations as a teacher, administrator, mentor teacher/coach, or researcher?
3. What solution would you provide to Ms. Smith to help ensure her students do better in bio?

The U.S. Customs and Border Protection reported nearly 2.4 million “encounters” at the southern border from October 2021 through September 2022, up from roughly 1.7 million in that same time period a year earlier. The more recent figure includes 155,020 accompanied and unaccompanied minors, all of whom are legally entitled to enroll in the nation's public schools.

About 20% of North County High School students are multilingual learners.¹ North County High School is located in a rural area that has a meat processing plant where many of the family members of EAL learners work. There are students with entering and emerging levels of proficiency. There are also students with intermediate and advanced levels of English proficiency. Some EAL learners are considered long-term, meaning they have been EAL learners for six years or more and have not been reclassified as English proficient. About 15% of these students have been identified as having specific learning disabilities or speech/language impairments. About one-third of the students come from homes where Spanish is

¹ Currently, this group of learners has many names including: English learners, emergent bilingual learners, English as an additional language learners, and multilingual learners.

spoken. The others come from various first language backgrounds, predominately homes where Vietnamese or Burmese is spoken.

One of the science standards covered during the third quarter of grade 9 states that students will “construct a model of transcription and translation to explain the roles of DNA and RNA that code for proteins that regulate and carry out essential functions of life.” Transcription and translation are two processes involved in protein synthesis. Protein synthesis is the biological process that occurs within cells to create proteins from DNA. In the case of the third quarter for students to be successful in modeling and explaining protein synthesis, they must have prerequisite knowledge related to cells, organelles, and DNA structure. Like other disciplinary core ideas in biology, hands-on activities like paper cut-out modeling and computer-based simulations exist. However, there is a lot of new information that students need to read, understand, and communicate (both verbally and in writing).

The school currently has only two ninth-grade biology teachers assigned to teach classes that include multilingual learners. One teacher, Ms. Smith, is an experienced biology teacher but does not speak another language. She has not been able to attend professional development sessions focused on supporting multilingual learners in content-area classrooms. The other high school biology teacher, Ms. Jimenez, has less experience as a biology teacher but is proficient in Spanish and English. Ms. Jimenez has attended a day-long workshop related to supporting multilingual learners in content area classrooms. She has had no experience teaching multilingual learners with entering and emerging levels of English proficiency. Both teachers understand that multilingual learners’ cultural backgrounds, linguistic resources, and prior knowledge provide a foundation for new learning. Their available resources are a set of labs and a standard biology textbook.

During the school year, Ms. Smith has been assigned to teach multilingual learners with intermediate and advanced proficiency levels. She is frustrated because her biology classes include multilingual learners as well as students who are English proficient. Some students have sufficient background knowledge to manage grade-level biology. Still, others do not for various reasons, including the inability to read grade-level text because of specific learning disabilities.