McGraw-Hill
My Math-Made For You

ELL Strategies in *McGraw-Hill My Math*

Surprisingly, content instruction is one of the most effective methods of acquiring fluency in a second language. When content is the learner's focus, the language used to perform the skill is not consciously considered. The learner is thinking about the situation, or how to solve the problem, not about the grammatical structure of his or her thoughts. Attempting skills in the target language forces the language into the subconscious mind, where useable language is stored. The more senses involved, the greater the investment in the situation's outcome to dramatically increase language integration. Given this, a few strategies to employ during instruction for the English Language Learner (ELL) are listed below:

- Activate prior knowledge
- Acknowledge cultural perspective
- Use manipulatives, realia, and hands-on activities
- Identify cognates
- Build a Math Word Wall
- Modeled talk
- Choral responses, echo reading

- Collaborative activities in pairs and small groups
- Tiered sentence frames and questions
- Create classroom anchor charts
- Utilize translation tools (i.e., Glossary, eGlossary, online/handheld translation tools)
- Anticipate common language problems

The *McGraw-Hill My Math* Program is built upon best practices and inherently supports ELLs to communicate the language of Mathematics in the four language domains: listening, speaking, reading, and writing. As suggested in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics, our "modifications to language do not sacrifice the mathematics." The suggested strategies and activities strengthen the quality of mathematics instruction, and provide additional language and concept support to accelerate English learners' acquisition of English.

The *McGraw-Hill My Math* Program has adopted three levels of language proficiency: Emerging, Expanding and Bridging used by the World-Class Instructional Design and Assessments Consortium (WIDA). Our English Language Learner Instructional Strategy (ELLIS) and Differentiated English Language Learner Support (DELLS) features ensure language development can be integrated with content instruction. Teachers can easily

utilize the ELLIS and DELLS to differentiate their instruction according to each student's current level of English language proficiency.

The following table outlines proficiency level descriptors for Emerging, Expanding and Bridging level English language learners.

Proficiency Level Descriptors

	Interpretive (Input)		Productive (Output)	
	Listening	Reading	Writing	Speaking
Emerging Level ELLs • New to this country, may have memorized some everyday phrases like, "Where is the bathroom", "My name is…." • May also be in the "silent stage" where they listen to the language but are not comfortable speaking aloud • Can follow simple classroom directions when overtly demonstrated by the instructor	• Listens actively yet struggles to understand simple conversations • Possibly understands "chunks" of language • May not be able to produce language verbally	• Reads familiar patterned text • Spanish decoding can transfer somewhat easily to make basic reading in English seem somewhat fluent; however, comprehension is weak	• Writes labels and word lists, copies patterned sentences or sentence frames, one- or two-word responses	• Responds non-verbally by pointing, nodding, gesturing, drawing • May respond with yes/no, short phrases, or simple memorized sentences • Struggles with non-transferable pronunciations
Expanding Level ELLs • Are dependent on prior knowledge, visual cues, topic familiarity, and pretaught math-related vocabulary • Solves word problems with significant support • May procedurally solve problems with a limited understanding of the math concept	• Has ability to understand and distinguish simple details and concepts of familiar/previous learned topics	• Recognizes obvious cognates • Pronounces most English words correctly, reading slowly and in short phrases • Still relies on visual cues and peer or teacher assistance	• Writing consists of short, simple sentences loosely connected with limited use of cohesive devices • Undetailed descriptions with difficulty expressing abstract concepts	• Uses simple sentence structure and simple tenses • Prefer to speak in present tense
Bridging Level ELLs • May struggle with conditional structure of word problems • Participates in social conversations needing very little contextual support • Can mentor other ELLs in collaborative activities	• Usually understands longer, more elaborated directions, conversations, and discussions on familiar and some unfamiliar topics • May struggle with pronoun usage	• Reads with fluency, and able to apply basic and higher-order comprehension skills when reading grade-appropriate text	• Able to engage in writing with scaffolded support • Has a grasp of basic verbs, tenses, grammar features, and sentence patterns	• Participates in most academic discussions on familiar topics, with some pauses to restate, repeat, or search for words and phrases to clarify meaning

English Language Learner Instructional Strategy

Each core lesson and Problem-Solving Investigation references an English Language Learner Instructional Strategy (ELLIS) that can be utilized before or during regular class instruction. These strategies specifically scaffold, i.e., provide support and assistance for ELLs (Peregoy & Boyle, 2008).

Categories of the scaffolded support are:

- Vocabulary Support
- Language Structure Support
- Sensory Support
- Graphic Support
- Collaborative Support

The goal of the ELLIS is to make each individual lesson more comprehensible for ELLs by frontloading lesson specific vocabulary and cognates, utilizing tiered questions during instruction, and displaying sentence frames for students to use during the lesson. Instructors are encouraged to provide sensory and graphic support as they model mathematic concepts to foster students' understanding of basic communication in an academic context.

Differentiated English Language Learner Support

The Differentiated English Language Learner Support (DELLS) activities are aligned with the math content in each lesson utilizing an academic language building focus. These activities are tiered for Emerging, Expanding, and Bridging leveled ELLs. Some activities include instruction to support students with lesson specific vocabulary they will need to understand the math content in English, while other activities teach the concept or skill using scaffolded approaches specific to ELLs. The DELLS are intended for small group instruction, and can be directed by the instructor, an aide, or a peer mentor.

Other Supporting Features

The following are other *McGraw-Hill My Math* features that support ELLs by building students' background knowledge, making connections, developing math vocabulary, and creating concrete math examples that progress to pictorial and finally to abstract representations.

- *My Math Words*
- *My Vocabulary Cards*
  (available in Spanish online)
- *Cognate Identification*
- *My Foldable™*
- *Investigate the Math*
- *Model the Math*

- *Personal Tutors*
  (available in Spanish online)
- *Lesson Animations/Games/APPS*
- *Introductory Videos*
- *Real-World Problem Solving Leveled Readers* (on level reader in Spanish)
- *English/Spanish Glossary*

References

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