Orchestrating Mathematical Discourse with English Learners

Language Proficiencies	Beginning	Intermediate		Advanced	
	Level 1	Level 2	Level 3	Level 4	Level 5
Characteristics of an English Learner	• May be familiar with some of the sounds and words of English • Responds to questions by pointing, gesturing, and drawing • May use first language to ask questions	• Understands and uses basic words, phrases, and commands • Follows conversations independently • Uses better grammar when communicating about mathematics, including asking questions and explaining the math	• Participates in discussions about mathematics, including asking questions • Uses higher-order language skills to participate in academic discourse • Uses more precise vocabulary with more accuracy	• Has a deeper understanding of language, including mathematics and academic vocabulary • Uses more sophisticated mathematical and academic vocabulary with fewer errors during academic discourse • Seeks clarification	• Uses more complex grammar and vocabulary when participating in academic discourse
What English Learners Can Do	• Can use their first language to communicate their thinking and ask questions • Can use visuals to contribute to the conversation	• Can ask questions using simple sentences • Can explain by using gestures and pointing at images on their paper • Can use sentence frames to explain their solutions	• Can ask questions and seek clarification using simple sentences • Can describe their process of solving a mathematics problem using simple sentences	• Can ask questions and seek clarification from both the teacher and other students about the content • Can participate in academic discourse and explain their thinking	• Can sustain a conversation during math discourse • Can also ask questions and seek clarification as needed • Can include both precise mathematics and academic vocabulary
Teacher Support	Create a growth mindset classroom by encouraging students to learn from mistakes both in mathematics and language.				

	• Establish a non-verbal way for students to ask for clarification (e.g., red/green cards).
	• Provide simple sentence starters to encourage participation:
	  – I agree with _____.
	  – I disagree with _____.
	• Partner students with each other to co-explain their solution.
	• Have students write their solutions in their first language.
		• Have students work with a partner to seek clarification.
		• Provide sentence starters to help communicate the mathematics using some key math and academic words.
		• Have students explain how they solved their problem to another student and have them write out the solution for them.
		• Have students practice saying the steps they used to solve before calling on them.
			• Provide students with sentence frames to ask questions and seek clarification.
			• Provide guidance to ensure students are using correct language.
			• Have students practice saying the steps they used to solve a problem before calling on them.
			• Have students work with a partner and practice explaining one portion of the solution before explaining it to the whole class.
				• Have students orally explain how they solved their problem.
				• Restate or recast questions or phrases to model correct English usage during discourse when students ask for clarification or participate in mathematical discourse.
				• Provide more complex sentence frames that include clauses.
					• Encourage students to ask for clarification.
					• Restate or recast student questions or comments to model correct English usage during discourse.

i-Ready Classroom Mathematics