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## MLR 8: Discussion Supports

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Unlike the other routines, MLR 8 includes a collection of strategies and moves that can be combined and used to support discussion during almost any activity.

Examples of possible strategies:

### Language

- Revoice student ideas to demonstrate mathematical language use by restating a statement as a question in order to clarify, apply appropriate language, and involve more students
- Practice phrases or words through choral response

### Rhetoric

- Press for details in students' explanations by requesting students to challenge an idea, elaborate on an idea, or give an example
- Demonstrate uses of disciplinary language functions such as detailing steps, describing and justifying reasoning, and questioning strategies
- Prompt students to think about different possible audiences for the statement, and about the level of specificity or formality needed for a classmate vs. a mathematician, for example. [Convince Yourself, Convince a Friend, Convince a Skeptic (Mason, Burton, & Stacey, 2010)]

### Understanding

- Show central concepts multi-modally by using different types of sensory inputs: acting out scenarios or inviting students to do so, showing videos or images, using gestures, and talking about the context of what is happening
- Think aloud by talking through thinking about a mathematical concept while solving a related problem or doing a task
- Give students time to make sure that everyone in the group can explain or justify each step or part of the problem. Then, make sure to vary who is called on to represent the work of the group so students get accustomed to preparing each other to fill that role

## Sentence Frames

Sentence frames can support student language production by providing a structure to communicate about a topic. Helpful sentence frames are open-ended, so as to amplify language production, not constrain it.

The table shows examples of generic sentence frames that can support common disciplinary language functions across a variety of content topics. Some of the lessons in these materials include suggestions of additional sentence frames that could support the specific content and language functions of that lesson.

Language Function	Sample sentence frames	
<b>Describe</b>	<ul style="list-style-type: none"><li>• It looks like...</li><li>• I notice that...</li><li>• I wonder if...</li><li>• Let's try...</li></ul>	<ul style="list-style-type: none"><li>• A quantity that varies is ____.</li><li>• What do you notice?</li><li>• What other details are important?</li></ul>
<b>Explain</b>	<ul style="list-style-type: none"><li>• First, I ____ because...</li><li>• Then/Next, I...</li><li>• I noticed ____ so I...</li></ul>	<ul style="list-style-type: none"><li>• I tried ____ and what happened was...</li><li>• How did you get...?</li><li>• What else could we do?</li></ul>
<b>Justify</b>	<ul style="list-style-type: none"><li>• I know ____ because...</li><li>• I predict ____ because...</li><li>• If ____ then ____ because...</li></ul>	<ul style="list-style-type: none"><li>• Why did you...?</li><li>• How do you know...?</li><li>• Can you give an example?</li></ul>
<b>Generalize</b>	<ul style="list-style-type: none"><li>• ____ reminds me of ____ because...</li><li>• ____ will always ____ because...</li></ul>	<ul style="list-style-type: none"><li>• ____ will never ____ because...</li><li>• Is it always true that...?</li><li>• Is ____ a special case?</li></ul>
<b>Critique</b>	<ul style="list-style-type: none"><li>• That could/couldn't be true because...</li><li>• This method works/doesn't work because...</li></ul>	<ul style="list-style-type: none"><li>• ____'s idea reminds me of...</li><li>• Another strategy would be ____ because...</li><li>• Is there another way to say/do...?</li><li>• We can agree that...</li></ul>

Language Function	Sample sentence frames	
<b>Compare and Contrast</b>	<ul style="list-style-type: none"> <li>Both ___ and ___ are alike because...</li> <li>___ and ___ are different because...</li> </ul>	<ul style="list-style-type: none"> <li>How are ___ and ___ different?</li> <li>What do ___ and ___ have in common?</li> <li>One thing that is the same is...</li> <li>One thing that is different is...</li> </ul>
<b>Represent</b>	<ul style="list-style-type: none"> <li>___ represents ___.</li> <li>___ stands for ___.</li> <li>___ corresponds to ___.</li> </ul>	<ul style="list-style-type: none"> <li>Another way to show ___ is...</li> <li>How else could we show this?</li> </ul>
<b>Interpret</b>	<ul style="list-style-type: none"> <li>We are trying to...</li> <li>We will need to know...</li> <li>We already know...</li> <li>It looks like ___ represents...</li> </ul>	<ul style="list-style-type: none"> <li>Another way to look at it is...</li> <li>What does this part of ___ mean?</li> <li>Where does ___ show...?</li> </ul>