DiALoG User Guide Intrapersonal Verbal Argumentation: Reasoning

DiALoG Dimension: Reasoning

As you use the DiALoG Tool in your classroom, you will determine if the following statement is Not Descriptive, Somewhat Descriptive, or Very Descriptive of the discussion you observe.

Students use reasoning to explain how data serves as evidence for their claim(s) and/or explicitly connect multiple pieces of evidence.

To help determine how well the statement describes the discussion you observe, you might also consider:

At the Very Descriptive level, students consistently explain how the evidence they reference connects to other evidence or to the claim(s) under consideration. They do this by describing how or why the evidence and claims work together to explain a scientific phenomenon or an aspect of that phenomenon. Students also consistently provide thinking about why they are connecting evidence to other evidence within an argument or why several pieces of evidence work together to support a claim.

Possible student statements that indicate students are using reasoning:

- *The evidence supports what I said because . . . .*
- *How it happens is that . . . .*
- *The evidence matters more/less because . . . .*

Useful teacher prompts to model or provide opportunities for students to demonstrate reasoning:

- *How does your evidence support what you think?*
- *How are different pieces of evidence connected to one another?*

Responsive Mini-Lesson Summaries

The Responsive Mini-Lesson (RML) summaries below are intended to help you understand how the lessons help students build facility using reasoning during a scientific discussion and to determine which RML is an appropriate fit for your students.

Not Descriptive

At the Not Descriptive level, students may support claims with evidence but rarely explain how the evidence they reference connects to other evidence or to the claim(s) under consideration. This might indicate that students are not yet familiar with how reasoning helps make an argument more convincing.

To respond to a score of Not Descriptive, this lesson provides an introduction to why reasoning is an important part of argumentation by having students practice reasoning with examples of everyday arguments. This lesson has two parts that can be taught independently. In Part A, students revise written arguments to make the reasoning stronger. In Part B, students practice their oral reasoning skills as they think on their feet during a Lightning Round Argument Game. This accessible content helps students develop an initial understanding of reasoning. The goal of this lesson is to provide students with opportunities to practice providing reasoning in written and oral formats.

Somewhat Descriptive

At the Somewhat Descriptive level, students sometimes explain how the evidence they offer connects to the claim(s) under consideration. However, they are not consistent about connecting the evidence they reference to other evidence and/or to the claim(s) under consideration. This might indicate that students are not always identifying when reasoning is missing from a scientific argument.

To respond to a score of Somewhat Descriptive, this lesson has students identify and revise reasoning in several arguments to make the arguments more convincing. This lesson has two parts that can be taught independently. In Part A, students listen closely to everyday arguments to identify where the reasoning is weak and revise the arguments to make them stronger. In Part B, students use a transcript and audio of two middle school students making scientific arguments to identify examples of strong and weak reasoning. The goals of this lesson are to deepen students' understanding of why reasoning is an important component of convincing oral argumentation and to provide students with an opportunity to identify and revise several arguments by adding in reasoning in a variety of open-ended ways.

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