

Responsive Mini-Lessons: Regulation—Somewhat Descriptive

About Responsive Mini-Lessons

Responsive Mini-Lessons (RMLs) provide short, targeted lessons that are responsive to each class's facility with oral argumentation, as assessed with the DiALoG Tool. The DiALoG Tool has eight components. Four are intrapersonal—claims, evidence, reasoning, and relevance; four are interpersonal—listening, co-constructing, critiquing, and regulation. RMLs are aimed at providing more practice with one of the eight components of the DiALoG Tool, so your students are more able to work together to enact rich, thoughtful, and engaging oral argumentation. For each component, the following phrases can be assigned, via the DiALoG Tool, to describe your students' abilities: Not Descriptive, Somewhat Descriptive, or Very Descriptive. An assigned phrase of Not Descriptive or Somewhat Descriptive indicates that your students likely need more support with that particular component of oral argumentation; a lesson is then suggested to help your students strengthen their abilities in that area. If the Not Descriptive phrase is assigned, the lesson provides basic, introductory support; if the Somewhat Descriptive phrase is assigned, the lesson assumes some basic facility with that component and provides an opportunity to practice it with more focus.

For the Regulation RMLs, the Not Descriptive lesson asks students to consider what the term *regulation* means with regard to scientific discussions in their own classroom and engages them in developing a list of strategies they can use to support regulation during discussions in the future. The Somewhat Descriptive lesson builds on this as students watch a short video of other students participating in an oral argumentation activity and analyze the interactions with regard to the regulation that does and does not occur.

Does a Responsive Mini-Lesson for the Somewhat Descriptive Level Make Sense for Your Class?

The suggestion to provide a Responsive Mini-Lesson for the Somewhat Descriptive level indicates that, based on your use of the DiALoG Tool, the following statement best describes your students' use of regulating during oral argumentation: *Students sometimes manage the discussion in such a way that respectful, equitable, and productive discourse can occur.* For more detail about this level and how it compares to other levels, please see the DiALoG Tool User Guide.

There is one Responsive Mini-Lesson provided for the Somewhat Descriptive level.

Goals

- Help students analyze the level of respect, productivity, and equitable participation in a scientific argumentation discussion.
- Help students develop regulation strategies to address a lack of equitable participation in scientific argumentation discussions.

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Materials and Teaching Considerations

For the class

- Projection: Definition of *Regulation*
- Projection: Group Work Questions
- Projection: Video Discussion Questions
- Projection: Directions for Participation Strategies
- Video: Student Discussion (<https://sites.google.com/berkeley.edu/usingdialog>)

Time frame: 20–30 minutes

Teaching Considerations

Most lessons will begin with an introduction followed by the lesson itself. The introduction is a brief activity that sets up and supports the lesson that follows. Each introduction is teacher-led, while the lesson that follows is more student-centered.

Getting Ready

1. Decide how to present the resources for this lesson. During the introduction and lesson, you will present Definition of *Regulation*, *Student Discussion* video, Video Discussion Questions, and Directions for Participation Strategies. The lesson is written as if these resources will be projected.

- Alternatively, you can choose to write Definition of *Regulation*, Video Discussion Questions, and Directions for Participation Strategies on the board or make enough copies of each projection so each pair of students receives one copy of each.
- Locate the *Student Discussion* video. This video can be found at: <https://sites.google.com/berkeley.edu/usingdialog>

2. If you did not teach the Regulation—Not Descriptive level, create the following:

- **Prepare posters with the words *respectful*, *equitable*, and *productive*.** At the top of a sheet of chart paper, in large letters, write “respectful”; write “equitable” on a second sheet; and write “productive” on a third sheet. Post these where all students

will be able to see them. During the introduction, you will record strategies/sentence starters/statements for each of these aspects of regulation.

- **Prepare Classroom Regulation Strategies chart.** At the top of a sheet of chart paper, write “Classroom Regulation Strategies” in large letters. During the introduction, you will record student-derived strategies for regulation. Post this where all students will be able to see it.

Introduction

1. If you previously covered the Responsive Mini-Lesson for the Regulation—Not Descriptive level:

- **Project and review Definition of *Regulation*.** Explain that in this lesson, students will continue to work on an important part of oral argumentation: regulation. Remind students that *regulation* means that students pay attention to the conversation and think about how they can help regulate the group independently, without the teacher, so the oral scientific argumentation is respectful, equitable and productive.

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- **Review the *respectful, equitable, and productive* posters.** Review the posters with examples and words that you recorded in order to help students understand what these words mean.
- **Review the Classroom Regulation Strategies chart.**
- **Summarize and preview the lesson.** Summarize the ideas on the Classroom Regulation Strategies chart and preview the lesson by saying, “**Regulation is a way of interacting that helps people make sure that everyone feels respected, everyone is getting a chance to talk, and the discussion is productive—or moving toward a goal, such as better understanding a science idea. When regulation does not occur, it often means that one or more of these things isn’t happening. Next, we are going to look at a video with a few people who are trying to have a discussion. You will decide if any of these ideas—respect, equity, or being productive—are not happening. Then, we will review and potentially add to the list of strategies we created to help regulate a discussion during oral argumentation.**”

2. If you did not cover the Responsive Mini-Lesson for Regulation—Not Descriptive level:

- **Introduce the concept of regulation.** Explain that in this lesson, students will work on an important part of oral argumentation: regulation. Explain that *regulation* means that students work together, paying attention to the conversation, and supporting one another in order to make sure that the group conversation is working well during oral argumentation. In this lesson, students will think about how they can help regulate the group when they are holding a discussion independently, without the teacher directing them.
- **Project Definition of Regulation.** Explain that this is a definition that applies to group discussions and, specifically, to the kinds of scientific discussions that are held in this class. The term *regulation* can mean other things in other contexts. Read the definition aloud and explain that students will be thinking about, and learning more about, the words in this definition.
- **Project Group Work Questions.** Read aloud each question and ask students to give a thumbs-up or raise their hands if they have had the experiences that are described.
- **Discuss how it felt to work in groups with the attributes mentioned on the projection.** Ask students to describe how it felt to work in group situations like these (without mentioning anyone’s name). Say, “**When you work together to regulate the conversation, you can avoid many of these issues and have better conversations. Today, we will work on understanding how to do this.**”
- **Project Definition of Regulation again.** Read aloud the definition to remind students what it entails. Afterward,

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say, “The words in this definition are difficult and may be unfamiliar. I want to take a few minutes to think about these before we move on to the rest of the lesson.”

- **Point out the posters for *respectful*, *equitable*, and *productive*.** Explain that you want students to share examples and words that will help all students understand what these words mean. Say, “I am going to start with the word *productive* and use this as an example. The word *productive* is one that a lot of grown-ups and teachers use. It is something we say to students when we want them to work hard and have a clear outcome. You can see that the word *product* is a part of this word. Often, teachers ask you to create a product such as writing a paper or making a drawing. When you work on this product, we might say, ‘You are being productive!’ This means that you are working toward your goal. When we talk about scientific argumentation being productive, this might mean working together to better understand an important science idea through discussion.”
 - On the *productive* poster write “working toward a goal; creating a product; and/or working together to understand something, such as a science idea.”
- **Focus on the *respectful* poster.** Ask students how they have heard this term before and what it means. As students share, record their ideas.
- **Focus on the *equitable* poster.** Explain that *equitable* has to do with

being equal. When something is equitable, then everyone has a chance to share or participate. Ask students to share examples of equitable

- **Develop a class list of regulation strategies.** Explain to students that while some groups seem to naturally work well together, it often takes some work to ensure that everyone collaborates well.
 - Let students know that they will now think about things they can do or say that are helpful or not helpful in achieving good collaboration.
 - Have students first work in pairs and then share ideas for how they might offer supportive ways of regulating the conversation when working together.
 - Record students’ strategies on the Classroom Regulation Strategies chart.
- **Discuss the definition of *regulation* again.** Say, “Now that we know a little more about these words, let’s think about the definition of *regulation* again. Regulation is a way of interacting that helps people make sure that everyone feels respected; that everyone is getting a chance to talk; and that the discussion is productive, or moving toward a goal, such as better understanding of a science idea. When regulation does not occur, then it often means that one or more of these things isn’t happening. Next, we are going to look at a video with a few people who are trying to have a discussion. You will decide if any of these ideas—respect,

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equity, or being productive—aren't happening. Then, we will discuss strategies that help with regulation and managing a more respectful, equitable, and productive discussion during oral argumentation."

Lesson

1. View *Student Discussion* video twice.

Explain to students that the video is of other middle school students who were engaged in argumentation about what form of a gene, or allele, causes some cats to glow in the dark. Ask students to think about whether this small-group discussion is respectful, equitable, and productive. Let them know that you will play the video twice.

2. Project the Video Discussion Questions.

Have a volunteer read each question aloud.

Ask, "What did you see or hear in the video that showed you respect, equity, and productivity was present or missing?"

Remind students of the examples and definitions of *respectful*, *equitable*, and *productive* they created on the three posters. Have pairs discuss the projected questions.

3. Focus on *respectful*.

- Ask if there are students who felt the discussion was missing respect. If so, ask for a volunteer to point out what they saw or heard that showed it was disrespectful.
- Ask if there are any students who want to offer evidence that the discussion was respectful. If so, ask for a volunteer to point out what they saw or heard that showed it was respectful.
- If students do not point it out, highlight that it is difficult to find evidence of disrespect because the students

listened attentively, faced one another, and did not interrupt.

4. Focus on *equitable*. Follow a similar process for equitable participation.

- Ask if there are students who felt participation was not equitable. If so, ask for a volunteer to point out what they saw or heard that showed it was not equitable.
- Ask if there are any students who want to offer evidence that the discussion was equitable. If so, ask for a volunteer to point out what they saw or heard that showed participation was equitable.
- Point out that it is difficult to find evidence of participation being equitable if some students dominate the discussion. Say, "It may be difficult for everyone to feel comfortable or to have time to participate when some students repeatedly speak or want their views to dominate the discussion. How can you make sure everyone feels that they have the opportunity to speak?"

5. Focus on *productive*. Follow a similar process for productive.

- Ask if there are students who felt the discussion was not productive. If so, ask for a volunteer to point out what they saw or heard that showed it was not meeting the goal of helping to better understand the science ideas.
- Ask if there are any students who want to offer evidence that the discussion was productive. If so, ask for a volunteer to point out what they saw or heard that showed the discussion was

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meeting the goal of helping to better understand the science ideas.

- If students do not point it out, highlight that it is difficult to find evidence or things that you saw or heard that show it was not productive because the students responded to and built on one another's ideas to expand their understanding of the alleles, or form of the gene, that could have caused the cats to glow.

6. Project Directions for Participation

Strategies. Ask students to consider that they were one of the members of the small-group discussion in the video.

- Ask students what regulation strategies they could use to ensure equitable participation? What could they have said or done to make sure that everyone felt like they had the opportunity and time to participate?
- Ask students to point out any strategies on the Classroom Regulation Strategies chart they could use.
- Have pairs or small groups generate a list of at least three things they can do or say to specifically help regulate when participation is not equitable.

7. Discuss strategies as a class. Have students share their strategies. You can add students' strategies to the Classroom Regulation Strategies chart.

8. Remind students of the group's responsibility for regulation. Remind students that everyone has a responsibility to help with regulation. Although some students might naturally step in, everyone should pay attention to and help with the discussion. Point out that the Classroom Regulation Strategies chart will remain posted to help everyone support respectful, equitable, and productive oral argumentation in the future.

Why This Mini-Lesson Matters

This mini-lesson provides students with a deeper understanding of the importance of regulation and what it looks like with regard to oral argumentation in the science classroom. Students evaluate a videotaped discussion of other middle school students during a Science Seminar. After evaluating the video, students develop a list of regulation strategies that would help the group in the video with more equitable participation in the future. Research has found that collaborative learning outcomes—such as the learning involved in argumentation—relate to levels of mutuality, coordination, and goal alignment among group members (Barron 2000). Thus, for students to effectively construct science knowledge with one another through argumentation, they need to have the group-interaction skills—or regulation skills—to effectively coordinate their efforts.

Resources

Barron, B. (2000). Achieving Coordination in Collaborative Problem-Solving Groups, *The Journal of the Learning Sciences* 9(4): 403–436.



The Learning
Design Group



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regulation: managing a discussion so it is respectful, equitable, and productive

Group Work Questions

Have you ever worked in a group in which . . .

- only one or two people spoke?
- people were disrespectful of one another?
- the teacher or another adult had to come in and resolve issues in the group?

Video Discussion Questions

- Was the discussion respectful?
- Was the discussion productive?
- Was participation equitable?

Directions for Participation Strategies

- How could you help everyone feel like they have the opportunity and right to participate?
- Make a list of at least three things you could do or say to specifically help regulate when participation is not equitable.