

Level 2: Student distinguishes between what is the claim versus the justification

Goal: Students will be able to critique two arguments and explain which is stronger, based on their understanding of the relative value of the forms of justification included in each.

Teaching Strategy: Compare and Contrast Two arguments

Works Best With: Whole Class and small group
Details

Preparation:

- Find or create two short arguments with one form of justification in each. Make sure that one justification is a strong one that is valued by the scientific community (e.g. data) while the other is considered weak (e.g. personal opinion). For this activity, you can reuse some of the arguments used to introduce this content (see Level 0).

Teaching:

- Explain to students that an important practice in science is to compare different arguments in order to decide which is more convincing and holds more value. One way to do this is to compare and contrast the kinds of justifications different authors use.
- Point out to students that when considering forms of justification, they have looked at a single argument and identified stronger or weaker forms of justification within that one argument. Next, they will be reading two arguments together in order to compare and contrast them and decide which is stronger, based on the forms of justification each uses.
- Present the two arguments to students. Have students read the two arguments and identify the forms of justification in each, using the Forms of Justification class chart as needed for reference.
- Ask students, ‘Which argument is stronger? Why do you think so?’ and have students discuss this in pairs. Next, ask students to share their ideas with the whole class. Help students understand that some forms of justification are stronger and held in higher regard by the scientific community, and because of this, one of the arguments is stronger than the other.

- Over a series of a few lessons, provide students with new sets of two arguments to compare and contrast and discuss. You may use older arguments that you've used before since this is for a different purpose.
- Gradually, provide students with arguments that contain more than one justification in them. For these arguments, you might want to provide students with a T-chart,, so that students can read, record the forms of justification on the T-chart, then compare across to determine which argument is stronger. As often as possible, try to make at least one form of justification more obviously weak, so students will be able to determine which argument is stronger more easily so they can get more practice with this skill.

Resources

- **Sample T-chart**

Why This Matters:

Identifying and critiquing forms of justification within a given argument is an important way to determine that argument's value, but it is a more sophisticated and complex skill to compare forms of justification across two or more arguments. Recognizing that stronger and weaker forms of justification lead to stronger and weaker arguments is an important step on the way towards critiquing arguments, an essential skill in argumentation and in science.