INSTRUCT TEACHING GUIDE
6. INTRODUCTION TO LOGICAL REASONING

If you are teaching how to reason, refer to:

- Inquiry
- Importance of Logical Reasoning
- Evidence-Based Reasoning

DISCUSSION TOPIC

Logical Reasoning
Logical reasoning is central to effective problem solving and decision making. Use this discussion to help students identify instances of logical and illogical reasoning they may encounter in their daily lives. Begin by asking students to brainstorm examples of logical arguments. Next, ask students to identify arguments that are based on illogical reasoning. Use the following prompts to encourage analysis:

- Why are logical arguments more credible than those based on illogical reasoning?
- What factors compromise a person's ability to reason logically?
- How do you use logic to make everyday decisions?

ACTIVITIES

Practicing Inquiry
To encourage your students to develop an inquiry-based mindset, begin with a scenario such as: *You are considering buying a new car. While a car that runs on gas is more affordable, an electric car would help reduce emissions. Use an inquiry-based approach to decide which type of car you should purchase.* You may want to present them with a scenario that relates specifically to the discipline of the course you're teaching or to your students' prospective career choices.

Instruct students to create a list of questions they would ask in order to gain a deeper understanding of the issue at hand. Students should be able to revise questions to develop an exploratory outlook and observe connections. Additionally, students should be able to identify at least 3 sources that would help them make the most informed decision.

Identifying Logical Reasoning
For this activity, you will need access to a recorded interview, discussion, or debate. Play the recording for your students to familiarize them with the topic and the speakers. Next, ask your students to watch or listen to the recording again to identify how the speakers use logic to advance their arguments. Students should be able to describe how the speakers use (or misuse) logic to form rebuttals and conclusions.

This teaching guide can be used by Instruct customers who have selected the Critical Thinking content package.

Practicing Evidence-Based Reasoning

Use this activity to help students practice incorporating evidence into their academic writing. This activity is most effective if paired with an upcoming research assignment. Each student should begin by analyzing their research question. Ask students to brainstorm follow-up questions to guide their process of gathering evidence. Follow-up questions should be related to the core question and facilitate deeper analysis.

Once your students have completed their research, ask them to create an annotated outline. The outline should include headers and topic sentences, each with a supporting citation. While crafting the outline, encourage your students to tie in specific pieces of evidence like statistics, direct quotes, or research findings.