

The ladder of inference

Objective

- Recognize how perceptions are explained and defended in conflict.
- Use the "ladder of inference" to explore data and reasoning used in reaching a conclusion.

Audience

High school and above

Time

30 minutes

Supplies needed

- Flip chart
- Markers

Do ahead

Prepare shoe store visual

Source

Adapted with permission from materials developed by Rob Ricigliano and Nancy Burrell, University of Wisconsin-Milwaukee

Prepared by:

Paula Rogers Huff 4-H Youth Development Agent Oconto County University of Wisconsin-Extension

University of Wisconsin-Extension is an EEO/Affirmative Action employer and provides equal opportunities in employment and programming, including Title IX and ADA requirements.

Background

onflict is very difficult for most people even though it is something that we all experience on a fairly regular basis. For many, part of the difficulty lies in experiencing the unpleasantness that may accompany conflict. The unpleasantness often comes into play when parties approach a problem or situation with different conclusions, and then argue over those conclusions.

In this lesson, we look at ways in which we can inquire to sincerely understand another's conclusions, as well as ways in which we can share our own information.

What to do

Shoe store problem

Introduce the shoe store problem (see attached support materials) by asking the group to work individually, with no talking. Tell them that when they have the problem solved, you'd like them to write their answer on a piece of paper. When everyone at their table has finished, they are to come to consensus as to the answer.

As facilitator, monitor the tables to get an idea of the direction your processing may take. Listen for how people are defending their positions, sharing data, or asking good questions.

Ask the groups to share their answers. If possible, wait until you are done processing to share generally accepted answer (see attached). You may want to write the answer on a flip chart. Review the activity by focusing on how people shared and defended their perceptions.

Ask processing questions that lead participants to understand when they are defending their answers (conclusions) rather than sharing data.

Ask a table that got the wrong answer:

- How did you deal with differing perceptions in your group?
- How did you reach consensus?
 (You may hear that they voted, or that someone finally gave in.)

If one table answers \$40 (the "correct" answer), ask them:

- Could you describe the process you used to come up with your shared answer?
- How was consensus reached in your group?

Make the point that some groups or individuals may have been arguing at the level of conclusion, while some groups shared their data and then their reasoning.





Ladder of inference

1. Introduce the ladder of inference (see attached), and explain the different levels on the ladder, emphasizing how different the reasoning and conclusions can be when we select different data.

Main teaching points

- We select different data.
- We interpret data differently.
- We come to different conclusions.
- Conclusions may differ not because one person is right and the other wrong, but because we select different data and interpret it differently, thereby giving different perspectives in the same situation.
- For mutual understanding in conflict, all parties need to share their data and reasoning.
- 2. Guided practice: It's hard to strip away all inferences and conclusions and get to data. Using the Ladder of Inference as a model, ask the group to describe an object in the room (table, pen, etc.) using DATA. If you are given an answer that doesn't seem to be data, ask the group where they think that falls on the ladder (i.e. "It's a pen" is at the level of conclusion.).

Optional: Provide common household objects and have participants work in groups to describe the objects as data.

- 3. Applying the ladder to conflict situation: When you are in a situation where you are in conflict with another party, use the ladder of inference to get at the other party's reasoning and data, instead of their conclusions. Don't forget to use the ladder to share your own data and reasoning, also!
- Teaching point: To get below the level of conclusion—push down the ladder of inference with good questions. For example, "Can you tell me what led you to think that?" or "What did you see that made you think that?"

To share your own thoughts, start at the bottom and work your way up the ladder. (i.e. "Let me tell you what I saw.")

4. Group activity "We select different data..."

Inform the group that you have a riddle for them that will help them think about data. Here it is:

You are driving an empty bus, going away from town toward the east for 12 miles. You turn to the right (south) and go for 6 more miles where you stop to pick up 7 passengers. Now you turn west and go for 3 miles where you pick up 4 passengers. Two passengers get off at this stop. You continue on for 9 miles where you turn to the north for 4 miles, let off 1 passenger, pick up two. You continue straight ahead for 2 more miles where you reach your destination.

Raise your hand if...

- you can tell me how many people are left on the bus?
- you know how many total miles the bus traveled?
- you can describe the bus route to me?
- you can draw me a map of where the bus went or where will it end up?

Now for the real question—Raise your hand if you know the age of the bus driver. How many of you listened for something else?

Teaching point: We select different data based on many different things, including our interests, what we understand, and what we are looking for.

Enhance

- Set up a ladder with a data pool beneath. In the data pool, place lots of cards on which are printed bits of data.
- Provide ample opportunity for less experienced groups to practice asking questions that draw out reasoning and data from conclusions.

Summary

e often see and hear things differently than others—and how we see and hear things may lead us to different conclusions. The Ladder Of Inference provides a model for inquiry into the data, reasoning, and conclusions of others, while providing a means for us to share our own data, reasoning, and conclusions with others.

A customer walks into a shoe shop early one morning. The customer finds a pair of shoes. The price of the shoes is \$60 and the customer gives the clerk a \$100 bill. The clerk does not have change for the \$100 bill, so he goes next door to the restaurant and asks for change. The restaurant gives the clerk 10 \$10 bills in exchange for the \$100 bill. The clerk returns to the shoe shop, gives the customer the shoes and \$40 change. Later in the day, the owner of the restaurant comes to the shoe shop and tells the clerk that the \$100 is counterfeit and demands \$100 back. The clerk gives the owner of the restaurant \$100. Not counting the price of the shoes (\$60), how much cash has the shoe shop lost?

The shoe store solution

Customer	Shoe store	Restaurant
\$100	\$100	\$100 (gives change back to shoe store)
	\$40 to customer, keeps \$60	
\$40	Gives the restaurant his original \$60 (from the \$100 in change) PLUS \$40 from till	
	Total cash lost = \$40	



- 2. Interpretations/reasoning—How what we see and hear makes us think or feel
- 1. Data—What we actually see and hear

Everything that is said or done