

Lesson Plans 9: Big ideas and deduction

The Civic Knowledge Project: Winning Words

Time: 1 hour

Abstract: Review the concept of induction and move on to deduction; read a few quotes from Socrates, and brainstorm some “big ideas” as a class; at least attempt to apply the concept of deduction to these ideas.

Review of *induction* (20 minutes)

Ask students to practice induction. Use the concept of justice, discussed during the first few classes, for this purpose. Hopefully the students will be able to bring a slightly more systematized approach to reasoning their way to a definition of justice. Ask students to make a list of specific instances when somebody acted justly, or when a just action was committed. Ask them to explain why Socrates would be dissatisfied with this “swarm” as the answer to the question “what is justice?” and involve the students in some “midwifery,” urging them to ask questions of one another in an effort to move toward an abstract definition. Emphasize that this process can be applied to different ideas and different situations

Big idea brainstorm (15-20 minutes)

Pair students up and write the basic Socratic question format (“what is ___”) on the board. Ask students to brainstorm “big ideas” to fit into the blank. Talk as a class about what makes a big idea big. Perhaps talking about the products of induction will assist in this task—a general idea will often be applicable in all sorts of scenarios, real-life situations, and hypotheticals. If students run into trouble, offer them some examples (evil, kindness, beauty, love, etc.)

Word of the day: *deduction, general and specific* (20 minutes)

Switch around student pairings, and ask new pairs to assist in the creation of diagrams depicting the process of induction, showing progress from specific ideas and hypotheticals, to general, “big” ideas. Ask students to come up with some original way of depicting this process, perhaps asking one student to first demonstrate the concept by drawing a kaleidoscopic “swarm” of bees on the chalkboard, flowing to a generally representative large “bee.” Be sure that students label their creations with *general* and *specific*, and make note of these in their notebooks.

Deduction. My students were unable to derive this process on their own, but it might be worthwhile to ask your class to attempt it. What is the opposite of induction, given our chart? What assumptions can be made about the bees in the swarm if we only know about the large, general “bee”? Ask students to make some general statements about their big ideas. A useful example: “What is a school?” “Schools have teachers, principals, and students.” “Schools are buildings with classrooms.” What, if we know these general ideas, can ***deduction*** tell us about *our* school? What can it tell us about a school we have never visited before?

Closing

Tell students that, even though Socrates never referred to deduction and induction, he nonetheless used them all the time, but, in a sense, disguised them as questions. For this, his midwifery, tell the students, he was sentenced to death. Next week, they’ll read some important quotes from Socrates.