

Argument mapping

What it is: Using specialized software or a pen and paper, students draw maps of an argument's structure. Though they can be done a few different ways, argument maps are usually drawn with boxes and arrows. Claims are placed in boxes, which are then arranged so that some claims are reasons for believing others, with each "branch" representing a separate reason supporting a conclusion. (You can find an example in this article: <http://sarbayes.org/ctwardy/Papers/reasonpaper.pdf>).

Why it might be worth trying: Argument maps allow students to see the underlying structure of an argument; for example, they can see the "chain" of reasons that support a position. Some argument mapping software also allows students to visually sort out and label stronger and weaker arguments. Some early research on cognitive mapping suggests that it may be more effective than summaries or outlines, arguably because the student is using two different pathways – the visual and the verbal – to process information (Nesbit & Adesope, 2006).

Applications:

- Ask students working alone or in small groups to map the argument in one of the course readings.
- After writing a paper – and before you grade and respond to it – ask students to exchange papers, create argument maps for the paper they read, then revise their own papers based on their peers' map.
- Ask students to draft argument maps instead of outlines for large, complex papers. (You will, of course, likely have to award points to and provide feedback on this work).

Potential pitfalls:

- Argument mapping is labor-intensive, both for you and the students.
 - Optimally you should give some time for students to practice and check their work in class
 - Students will need prompt, careful feedback on their maps, especially early on.
- It is also somewhat difficult for students to learn, though the suggestions in Charles Twardy's article and in the Austhink tutorial (listed in "Resources" below) may go a long way here.

Resources:

Tutorials: <http://www.austhink.com/reason/tutorials/>

Open-source argument mapping software:

Argunet http://www.argunet.org/front_content.php

Argumentative <http://sourceforge.net/projects/argumentative/>

Articles

Nesbit, J.C. and Adesope, O.O. (2006). Learning with concept and knowledge maps: A meta-analysis. *Review of educational research* 76(3), 413-448.

Twardy, Charles. "Argument maps improve critical thinking." *Teaching philosophy*. 27:2, June 2004. 95-116.