Argument Mapping, A Tutorial

Reading Complex Texts

Argument Identification

A Review

Before diagramming, a reminder of skills:

- 1. Identify premises and conclusion (claim)
- 2. Eliminate non-argument, nonessentials (reports, explanations, and context, where they are not part of the evidence)
- 3. Identify reasoning
- 4. Identify evidence

Next Steps to Mapping

Before diagramming, a reminder of skills:

- 5. Identify the logical order (which evidence to support which reason)
- 6. Identify the steps in the claim(s) (logical order of sub-claims to claim)
- 7. Visually prepare

Some Words of Caution...

- > Not all premises and conclusions are complete and independent sentences:
 - EX: We should go to dinner tonight because we do not have anything to cook.
- Where possible, use indicators... but they aren't always indicative
 - Premises: After all, given that, as for, the reason that ... is ..., in light of ..., based on that fact that ..., assuming that ...
 - Conclusions: so, thus, hence, therefore, accordingly, consequently, way can infer that ..., ... implies that ..., which proves that ..., it follows that ...
- Reasons can be provided in a list
 - ... but not all reasons may have provided evidence ("inferred evidence")
- In some cases, the conclusion/claim may not be clear or obvious either ("inferred" or "implied conclusion").

Quick Example

Identify, Order, Connect

If the Miranda decision is reversed, police will no longer be compelled to give those warnings; and if they aren't compelled to give them, they won't give them. But because police interrogations take place out of public view, the integrity of such interrogations can be safeguarded only if those Miranda warnings are invariably given.

(From Supreme Court case, no. 99-5525)

Quick Example - A

Explained

- ✓ Premise (1): If the Miranda decision is reversed, police will no longer be compelled to give warnings
- ✓ Premise (2): If police aren't compelled to give Miranda warnings, they won't.
- ✓ Premise (3): Police interrogations do take place out of the public view [declaration of fact]
- ✓ (3) \rightarrow sub-conclusion: the integrity of the interrogations is at risk \rightarrow Miranda warnings are the only safeguard
- ✓ Final Conclusion (implied): The Miranda decision must not be reversed.

Quick Example - B

Adding Evidence to the Equation

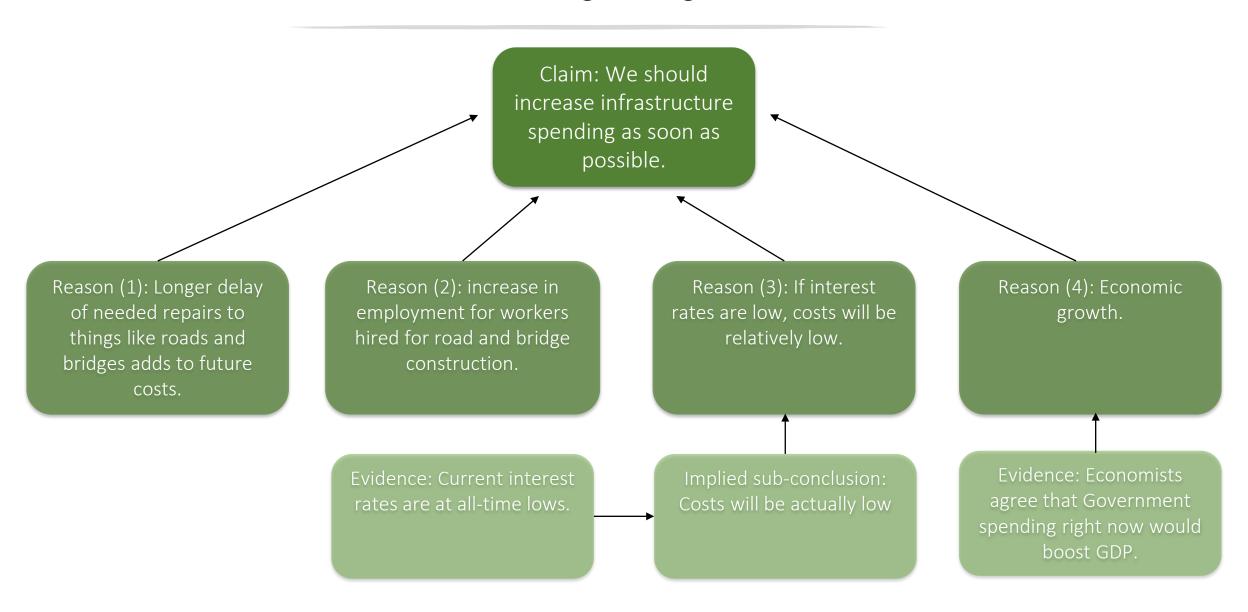
We should increase infrastructure spending as soon as possible. Why? First, the longer we delay needed repairs to things like roads and bridges, the more they will cost in the future. Second, it would cause a drop in unemployment, as workers would be hired to do the work. Third, with interest rates at all-time lows, financing the spending would cost relatively little. A fourth reason? Economic growth. Most economists agree that government spending in the current climate would boost GDP.

Quick Example - C

Identified

- ✓ Claim: We should increase infrastructure spending as soon as possible.
- ✓ Reason (1): Longer delay of needed repairs to things like roads and bridges adds to future costs.
- ✓ Reason (2): Increase in employment for workers hired for road and bridge construction.
- ✓ Reason (3): If interest rates are low, costs will be relatively low.
 - Evidence: current rates are at all-time lows
 - Implied sub-conclusion: costs will be actually low
- ✓ Reason (4): Economic growth.
 - Evidence: economists agree that government spending right now would boost GDP

Making a Diagram



Guided Practice #1

Creating the Structure

Though science fiction writers and fans would be disappointed, it is scientifically unlikely that extraterrestrial intelligent life exists in our own galaxy. Dating studies and theories strongly suggest that the sun is about 4.6 billion years old, and that life took nearly that long to form and evolve from Earth's formation. Using the same dating, studies also show that about half of the stars in the galaxy are even younger than our sun; so, if it takes 4-5 billion years to develop life, young stars cannot yet have intelligent life. To add further support, research finds that at least half of the stars in our galaxy are part of binary systems, and evidence concludes that life-supporting planets cannot withstand that kind of gravitational force. As a result, only a small percentage of stars in our galaxy could even possibly suit intelligent life.

Guided Practice #2

Creating the Structure

History has shown the evolution of music technology time and time again. Record sales diminished when cassettes became available to the public, and cassettes were eventually dropped in favor of CDs. Today, market research indicates that digital music sales outpace all other forms of physical music consumption. Because of this shift to digital, music can now be consumed one track at a time, rather than needing to be purchased as a full album. While digital piracy may have some impact, it is really the change in format that is negatively affecting album sales.

Small Group Practice

Work in groups of four—each group will receive a complex argument (one central claim, but multiple possible sub-claims, reasons, and/or pieces of evidence). As a group, students need to identify the main claim/conclusion and then identify all given reasons and evidence where available. Student groups should consider implied reasonings or sub-conclusions as well where necessary for diagramming. As a group, students should create argument trees to show the way in which the argument is structured, connecting evidence to proper reason, and reasoning to proper sub-claims and claims as made by the argument.