

Mind-mapping, Tree Diagramming and Linear Outlining Handout

The purpose of this handout is to give you a general introduction to **one** organizing strategy. It is taken from a book called *Engaging Ideas* by John C. Bean (Jossey-Bass Publishers, 2001, pp. 230-234) and summarized here in a format more appropriate for The Writing Lab. As Bean notes, some writers organize better before they write while others organize better after they have attempted to write something. In either case, there will be a time when the following three outlining strategies will be productive to employ.

MIND-MAPPING (also called Idea Maps and Concept Maps)

Mind Maps are used very early in the writing process to help generate ideas and clarify the relationships between ideas. The key to doing this productively is the freedom to follow your train of thought wherever it leads you. The goal is not to be concise and precise but rather to explore the topic in very broad, general terms.

Strategy for Mind-mapping

[please refer to accompanying example of a mind-map taken from Bean's book in respect to a paper evaluating arguments by Carl Cohen and Peter Singer for and against the use of animals in medical research]

1. Begin by drawing a circle in the middle of a piece of paper. Write a key word or phrase that is central to the general focus of the paper.
2. Write the first thought that comes to your mind about this key word or phrase and connect it to the circle by a line (a *branch*).
3. From this first branch, write more thoughts connecting them by more *branches* and *sub-branches*. Continue to do this until your ideas "run dry."
4. Go back to your key word and phrase in the circle and start a new *branch* of thought.
5. Repeat step 3 with your new *branch* from step 4.
6. Continue this process until you think you have covered the main issues of the focus of your paper.

TREE DIAGRAMMING

The purpose of a tree diagram is to help clarify the shape of the argument of your paper. It starts with the very general ideas of your mind-map and begins to organize them in respect to their importance to your purpose. In a tree diagram, headings and sub-headings are indicated through spatial locations rather than through a system of letters and numerals as in a traditional outline. The goal of the tree diagram is to give you, at a glance, the skeletal outline of your ideas. This will give you a picture of the structure of your argument and its sequential parts. It will help you clarify your argument by allowing you to see how the components of your thinking relate to each other and where your argument might need more work.

Strategy for Tree Diagramming

[once again, please refer to the example from Bean's book. It is a tree diagram based on the mind-map regarding the Cohen/Singer debate on the use of animals in medical research]

1. Write your working thesis/conclusion at the top of the paper (*the top of the tree*)
2. Underneath the thesis, write the main points you will need to make to support your thesis. Sometimes it is helpful to add question marks as main points for additional points that may be added later.
3. Underneath each point, brainstorm ways to develop that section of the argument--main subarguments, key data, evidence, supporting theory, etc.

LINEAR OUTLINING

The purpose of a linear outline is to organize your paper in respect to two major concerns: 1) the order or sequence of your writing, and 2) the relative importance of each idea. Microsoft Word[®] has a specific outlining feature to assist this process.

Strategy for Linear Outlining

[please see the example of linear outlining based on the mind-map and tree diagram taken from Bean's *Engaging Ideas*]

1. Arrange the order of your main sub-points, the first layer of the tree diagram under the thesis statement. The key to their relative order is their logical relationship to each other. These are your first-order points in your outline.
2. Under each of these first-order points, arrange the order of your major sub-points. The key to their relative order is their logical relationship to each other. These would be the most important points under your main points on your tree diagram. These are your second-order points.
3. Under each of your second-order points, arrange the key arguments/data/etc. that develop and support them.
4. You can continue to break down your argument and flow of thought into more levels as long as it is helpful and productive to do so.

Example of a Linear Outline

- I. Introduction: Main Thesis--Cohen's argument is stronger than Singer's
- II. Despite strengths, Singer's argument has a major flaw
 - A. Strengths of Singer's argument
 1. Criterion of pain is consistent and easy to apply
 - a. Description of animal suffering in factory farming
 - b. Description of animal suffering in medical research
 2. "Interests" of animals more complex and useful than Cohen's argument that animals have no rights.
 - a. Our moral nature forces us to respect animals' interests
 - b. Cohen's focus on "rights" omits issue of what to do about animal's pain
 3. Strong argument in favor of vegetarianism
 - a. Better diets
 - b. Cut down destruction of rain forests
 - c. Easier to feed world
 - B. Major Flaw: His argument forces us to condemn use of animals for medical research
 1. Assumes falsely that humans and animals have equal worth
 2. Ignores benefits of biomedical research for humans
- III. Although Cohen doesn't take adequate account of the suffering of animals, his argument provides strong justification for use of animals in biomedical research
 - A. Major Weakness: He argues that we should treat animals humanely even though they have no rights.
 1. Inconsistent
 2. Saying they have no rights doesn't address what they do have that makes it necessary for us to treat them humanely
 3. Singer's notion of "interest" not dealt with by Cohen
 - B. Major Strength: Consistent justification for use of animals in biomedical research
 1. Argument from rights shows why human suffering counts more than animal suffering
 2. Argument from consequences shows benefits from animal research
 - a. Small pox
 - b. Diabetes
 - c. Current AIDS research
 - d. Search for cancer cures
- III. Conclusion