Heuristics for Invention

“What should I write about?”
Generating Content Can Be a Problem

“Whether the problem solver is a writer, a musician, a physicist, or a chess player, experts appear to have an arsenal of strategies which will direct them toward a solution. Novices, on the other hand, most often rely on trial and error.”

—Carol Berkenkotter

Heuristic: A Definition

A heuristic is a method of solving problems. It is a series of steps or questions which are likely to lead to a solution to a problem.
A heuristic is any series of questions or operations which an inquirer uses to find information.

Heuristics should be:
- generative,
- flexible,
- simple,
- and enable new ways of viewing
What Heuristics Do

• Help search long term memory
• Stimulate new connections
• Enable new insights

Some Heuristic Techniques for Invention

• Writing
• Questioning
• Graphic organizers and mapping
• Systematic exploration
  - Aristotle’s Topics
  - Tagmemics
  - Burke’s Pentad

Writing

• Theory: Writing is a form of thinking.
• Writing can be used to discover what you have to say.
Writing Listing/ Brainstorming

Topics I Can Write About

1. 
2. 
3. 
4. 
5. 
6. 

Writing
From Peter Elbow's Writing with Power

• First thoughts (focused freewriting)
• Prejudices/ preferences
• Dialogues
• Stories
• Scenes
• Portraits
• Vary the audience
• Vary the writer

Questioning
From Berke's Twenty Questions for the Writer

Imaginative

1. How can X be described?
2. How did X happen?
3. What kind of person is X?
4. What is my memory of X?
5. What is my personal response to X?
Twenty Questions
Informative

6. What are the facts about X?
7. How can X be summarized?

Twenty Questions:
Analytical

8. What does X mean?
9. What is the essential function of X?
10. What are the component parts of X?
11. How is X made or done?
12. How should X be made or done?
13. What are the causes of X?
14. What are the consequences of X?
15. What are the types of X?
16. How does X compare to Y?
17. What is the present status of X?

Twenty Questions
Critical

18. How should X be interpreted?
19. What is the value of X?
20. What case can be made for or against X?
Graphic Organizers and Mapping

• K-W-L charts
• Pie charts (part to whole)
• Causal chains
• Idea webs
• Plot charts
• Venn diagrams
• 5W chart (who, what, where, when, why)
• Cluster map
• Mind map

Systematic Exploration: Aristotle’s Topoi

• Definition (classify and differentiate)
• Comparison and contrast
• Cause and effect
• Support from evidence or expert testimony

Systematic Exploration: Tagmemics

Tagmemics is a system that allows you to look at a single object from three different perspectives. The hope is that one of these perspectives (or even all three) can help you to determine a subject for writing. Tagmemics involves seeing your topic:

1. As a particle (as a thing in itself)
2. As a wave (as a thing changing over time)
3. As part of a field (as a thing in its context)
Tagmemics: Particle
View the unit as an isolated, static entity. What are the features that differentiate it from similar things and serve to identify it.

Tagmemics: Wave
View the unit as a dynamic (changing) object or event. What physical features distinguish it from similar objects or events? How is it changing?

Tagmemics: Field
View the unit as an abstract, multidimensional system. How are the components organized in relation to one another? How are they related to the group of which they are a part? How are they related in time and/or space?
Systematic Exploration: Burke's Pentad

- Agent
- Agency
- Act
- Scene
- Purpose

Cubing

Cubing is a technique for swiftly considering a subject from 6 points of view.
- Describe it.
- Compare it.
- Associate it.
- Analyze it.
- Apply it.
- Argue for or against it.

Cubing Rules:
1. Use all six sides of the cube.
2. Move fast. Don't allow yourself more than 3-5 minutes on each side of the cube.