Heuristics

HDWDWW  (How does who does what and why?)

A tool to help writers generate ideas by naming the agent (who?), action (does what?), manner (how does?), and purpose (why?).

Ask questions about your subject such as:

Who does...? Who has...? Who does what...? How does...? How are...? Why do...?

Example: To generate information about snowshoes, you could ask: How do they work? How are they manufactured? Out of what materials? Who manufactures them? Who sells them? Who buys them? Who uses Them? Why are they used? When are they sold? For whom are they sold? To whom are they sold?

Now record the information in a chart to organize and list the ideas and information.

Example: The writer’s assignment is to write an essay on how various interest groups view the issue of waste water pollution from irrigation projects in the San Joaquin Valley. Using HDWDWW, she asks these questions:

Who has an interest in resolving this issue?

   Farmers, consumers, manufacturers of fertilizers, contractors, environmentalists (list on chart)

What do these people do about waste-water?

   Environmentalists are trying to shut down the projects. Farmers want to keep them going so they can produce more fruit and vegetables. Consumers want low produce prices all year so they would want to keep the projects going. (record on chart)

How about the other people?

   The manufacturers depend on selling fertilizer and tractors to farmers, and the more land is irrigated, the more farms there are, so they would support projects. (fill in chart)
The contractors make money by building the irrigation systems—and they build the factories that build the tractors. They would support the projects. (fill in chart)

WHO

DOES WHAT

WHY

farmers

want to keep projects going

more produce

consumers

want to keep projects going

lower prices

manufacturers

support projects

need customers

contractors

support projects

need contracts

environmentalists

want to close projects

causes pollution

An HDWDWW sentence beginning “Contractors support irrigation projects” could be completed in a number of ways: Contractors support irrigation projects because they think the danger of pollution is exaggerated; or Contractors support irrigation projects because they are developing ways of removing pollutants that wash out of the soil; or Contractors support
irrigation projects because they increase their earnings by building warehouses for the surplus good grown by means of those projects.

Double-entry Listing

Double-entry listing uses a form to generate material for composing by listing kinds of relationships. It allows you to see something (subject) with respect to, in terms of, in relation to something else involving oppositions. These forms of relatedness are not only differences, but many kinds of relationships such as: class/class, class/member, general/particular, particular/general.

To use the double-entry form for elaborating ideas, start by drawing a line down the page and write subject on one side and “‘other’ element” on the other side.

Write your subject under the subject heading and begin to fill in the other side with anything you think about your subject. (For this example the subject is “urban violence.”)

Example: Questions about urban violence to stimulate the thinking process could be:

- If there is urban violence, what other kind of violence is there?
  - Rural violence (list on chart under “other”)

- What does the phrase “urban violence” bring to mind?
  - LA during the Watts riot, the riots in Detroit, mugging, child abuse and other kinds of domestic violence. (add to the “other” column)

<table>
<thead>
<tr>
<th>subject</th>
<th>“other” element</th>
</tr>
</thead>
<tbody>
<tr>
<td>urban violence</td>
<td>urban violence</td>
</tr>
<tr>
<td>urban violence</td>
<td>urban violence</td>
</tr>
<tr>
<td>urban violence</td>
<td>rural violence</td>
</tr>
<tr>
<td>the Watts riots of 1964</td>
<td></td>
</tr>
</tbody>
</table>
the Detroit riots
mugging
child abuse
domestic violence

As the double-entry list helps recall material by relating the subject to some “other” elements, the next step would be to explore the nature of the relationship.

Example: Questions about the kind of relationship could be:

What kind of relationship do you see between “urban violence” and mugging, child abuse, and domestic violence? They are kinds of violence.

Are there other kinds? Auto theft, arson, vandalism, armed robbery. (add to list)

What about kinds of violence of other things on the list?

Rural violence has moonshining, cattle rustlers, and probably child abuse and domestic violence are in the country as well as the city. (fill in under rural violence)

subject

“other” element
urban violence
child abuse
domestic violence
auto theft, arson
vandalism
armed robbery
rural violence
child abuse

domestic violence

moonshining

cattle rustlers

By applying the question “What kinds are there?” to the opposition between “urban” and “rural” the kind of relationship (a class and an example) is identified.

Further questions help identify other kinds of relationships between the subject and “other” elements. The double-entry form could then look something like the following example:

<table>
<thead>
<tr>
<th>kind of relationship</th>
<th>subject</th>
<th>“other” element</th>
</tr>
</thead>
<tbody>
<tr>
<td>class/class</td>
<td>urban violence</td>
<td>urban violence</td>
</tr>
<tr>
<td>class/member</td>
<td>urban violence</td>
<td>urban violence</td>
</tr>
<tr>
<td>general/particular</td>
<td>urban violence</td>
<td>urban violence</td>
</tr>
<tr>
<td>particular/general</td>
<td>urban violence</td>
<td>urban violence</td>
</tr>
<tr>
<td>urban violence</td>
<td>rural violence</td>
<td>mugging, arson, etc.</td>
</tr>
<tr>
<td>rural violence</td>
<td>the Watts riots of 1964</td>
<td>the Detroit riots</td>
</tr>
</tbody>
</table>
Circles and Diagrams

A circle diagram, with the subject in the middle and questions surrounding it like spokes is a tool to use to recall information. The spokes can consist of two or three questions, or some of the standard questions (Who? What? Where? When? Why? How?), or as many questions relevant to the topic.

Circles

Advantage: More visual and easy to see relationships between ideas; ideas go in any direction; very effective when combined with HDWDWW.

Disadvantage: May need an additional organizational step; may not connect ideas to each other as well as they are connected to the main idea.

Example: The topic is San Joaquin waste-water pollution. Some questions to ask could be:

What pollutants are there? Arsenic, selenium. (add spoke “what?” and write answer)

How do they get into the water? Not from artificial sources, like insecticides and fertilizers but occur naturally in the soil. (add new spoke “how?” and record answers)

How does pollution occur if arsenic and selenium occur naturally? When relatively large amounts wash from the soil when the irrigation water runs off into a pond or lake, like the Kesterson Wildlife Refuge. (add to “how?” spoke)

Who is interested? Farmers, consumer, manufacturers of fertilizers, contractors, environmentalists. (add new spoke “Who?” and answers)

The questions on one spoke can generate further information by becoming the subjects for new circles. Example:

Who are the farmers?

Those who belong to co-ops and the huge farms by corporations.

Why? They want to bring more land under cultivation, and they want to raise several crops a year without depending on a rainy season.
Diagrams

Trees

Tree diagrams can help generate ideas for assignments that entail classifications (What are the kinds of this? What are the alternative ways to do that?) or conditions (“if yes, X... if no, Y” and “if... then... else”).

Advantage: More structured than circles; like a flow chart and can loop back to ideas; good to use to finish a paper; share same advantages as circles.

Disadvantage: Might not be able to classify relationships; may need an additional organizational step.

Example: The subject is the consumer in relation to irrigation projects.

What do the consumers think about the irrigation projects?

Some support the projects and others would not. (begin a tree diagram with “for” and “against”)

Why do some support the projects?

Everybody wants to pay low prices for their food, and since plentiful supply reduces prices, they would support irrigation projects. (add a branch to “for”)

Why wouldn’t the other consumers support the projects?

To protect the environment and to avoid paying taxes to store food surpluses. (add two branches to “against”)

What do the consumers who support the projects think about the taxes?

They would save taxes when the larger farms create more jobs, so more people are employed and pay income tax and don’t collect welfare. (add another branch to “for”)

Consumers
Matrices

A matrix is a two-dimensional array of information in which one axis lists questions or criteria to be applied to the items listed on the other axis. This more complex and analytical heuristic helps writers to elaborate their ideas by seeing them as relationships.

Advantage: Good tool to use when you already have an idea of where you want to go with your topic; good second and third step after brainstorming; good to organize many ideas; helps to see relationship between ideas.

Disadvantage: Could be intimidating; too much blank space; too many categories; too complicated; not so good for pure brainstorming.

An example of a simple matrix:

The assignment is to compare and contrast the benefits and disadvantages of two products.

<table>
<thead>
<tr>
<th></th>
<th>PRODUCT A</th>
<th>PRODUCT B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similarities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disadvantages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disadvantages</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An example of a more complex matrix:

The assignment is to explain what constitutes a “star” performance in popular music.

Who are your favorite singers right now?

Cyndi Lauper, Tina Turner, Donna Summer (list names across the top)

What would you say makes them stars?

The hit songs. (begin a vertical list with “hit songs”)

What are the hit songs?

“Time after Time” for Cyndi Lauper, “What’s Love Got to Do with It?” for Tina and “The Rose” for Bette Midler. (list songs under each singer)
What else about these performers?

They are all dramatic performers. They make it seem there is a story behind the song. You get the feeling that the character is based on their own experiences. They dance, too. (list “character dramatizes” and “dance” below “hit song”)

How are the characters dramatized?

Cyndi just seems like a person who could pick up the pieces of a love affair “time after time,” Tina Turner says she’s been hurt too often and now she’s “taking on a new direction,” and Bette says you have to be willing to take risks in love. (add these to the list)

“Star” Vocalists

<table>
<thead>
<tr>
<th></th>
<th>Cyndi Lauper</th>
<th>Tina Turner</th>
<th>Bette Midler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hit Song dance</td>
<td>“Time after Time”</td>
<td>“What’s Love Got to Do with It?”</td>
<td>“The Rose”</td>
</tr>
<tr>
<td>character dramatizes</td>
<td>pick up pieces</td>
<td>take on a new direction</td>
<td>take risks</td>
</tr>
</tbody>
</table>

This matrix could be expanded by adding other categories which seem appropriate, such as:

Real life, refrain, publicity and costumes to the vertical axis and possibly other singers across the horizontal axis.

Using a matrix system will help writers to ask the same questions about each member of a class of things being compared. It can help them avoid confusion when asking questions, and help writers realize that they have so much to say about a particular subject.