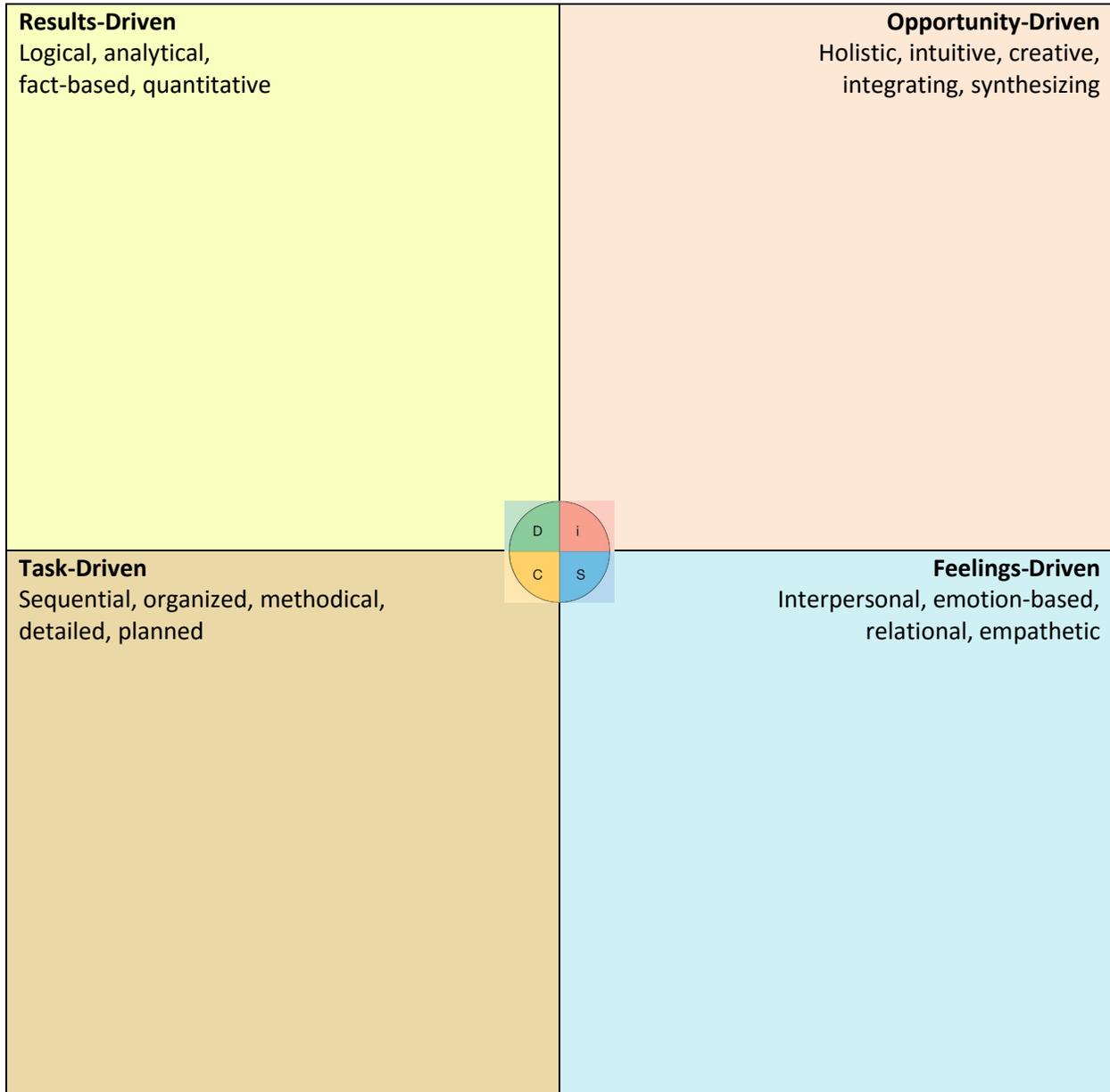


Classic Thinking Styles



The 5 Whys

The 5-Whys Technique was devised by Sakichi Toyoda (the founder of Toyota Industries) in the 1930s. The technique itself is very simple: when a problem occurs, you investigate its nature and causes by asking “why?” at least five times. It is important to have the right people provide the answers to your questions, in order to arrive at a conclusion that is accurate.

5 Whys is great for problems that are not very complex, but for problems where there may be multiple causes, a more formal cause-and-effect analysis would be a better choice.

Example

1. **Why does the memorial deteriorate faster?**
Because it gets washed more frequently.
2. **Why is it washed more frequently?**
Because it receives more bird droppings.
3. **Why are there more bird droppings?**
Because more birds are attracted to the monument.
4. **Why are more birds attracted to the monument?**
Because there are more fat spiders in and around the monument.
5. **Why are there more spiders in and around the monument?**
Because there are more tiny insects flying in and around the monument during evening hours.
6. **Why are there more insects?**
Because the monument’s illumination attracts more insects.

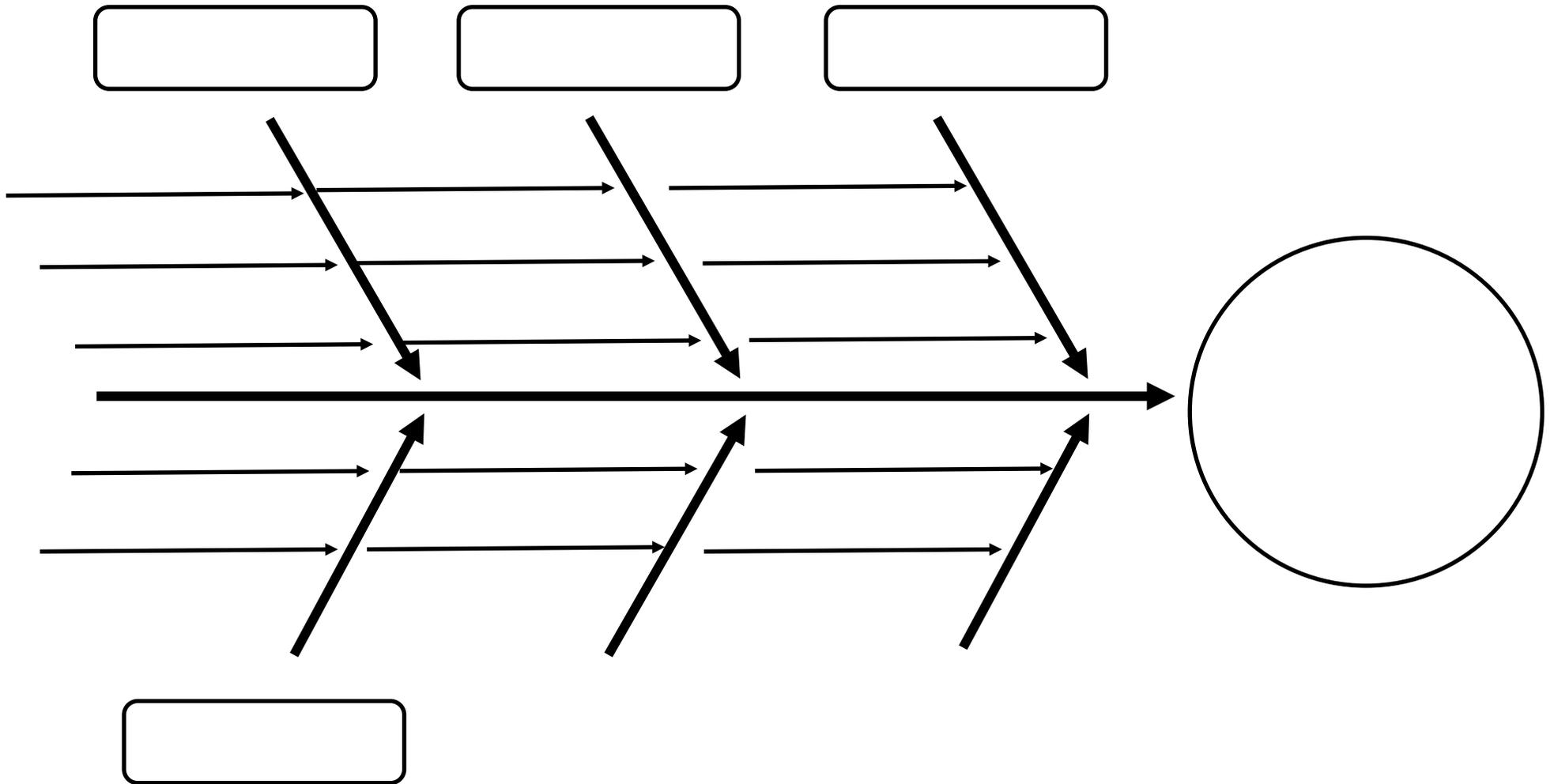
Fishbone (Ishikawa) Diagram

A fishbone diagram – or Ishikawa diagram – is an example of a more complex (than the 5 Whys) cause-and-effect tool. Dr. Kaoru Ishikawa, a Japanese quality control expert, is credited with inventing the fishbone diagram to help employees avoid solutions that merely address the symptoms of a much larger problem.

To create an Ishikawa diagram:

- 1) Draw a circle on the right to create the “head,” which lists the problem or issue to be studied.
- 2) Create a backbone for the fish (straight line which leads to the head).
- 3) Identify at least four “causes” that contribute to the problem. Connect these four causes with arrows to the spine. These will create the first bones of the fish.
- 4) Then brainstorm around each “cause” to document those things that contributed to the cause.
- 5) Continue breaking down each cause until the root causes have been identified.

Here’s the link to a short video on creating a fishbone diagram: https://www.youtube.com/watch?v=11_pvMrWnks



Edward De Bono's Six Thinking Hats



Objectives of the technique:

- Examine important decisions from different perspectives ("hats").
- Promote better decisions by pushing movement outside habitual ways of thinking.
- Examine full complexity of the decision and identify issues and opportunities to which people might be blind.

Questions that can be asked to stimulate **black hat** thinking include:

- Is this true? Will it work? Why it won't work? What are the weaknesses? What is wrong with it?

Questions that can be asked to encourage **yellow hat** thinking include:

- What are the good points? What are the benefits? Why will this idea work? Why is this worth doing? How will it help us? Why can it be done?

Questions that can be asked to stimulate **white hat** thinking include:

- What information/facts do we know? What information is missing? What information/facts would we like to have? How are we going to get the information? What is relevant? What is most important? How valid is this?

Questions that can be asked to explore **red hat** thinking include:

- How do I feel about this right now? How cold or warm do I feel about this? How am I reacting to this?

The **blue hat** is unique as it thinks about thinking (critical thinking!). It involves control or organization of the thinking process as well as instructions for thinking. Thinking sessions usually begin and end with the blue hat, which is normally “worn” by the facilitator. The blue hat controls the sequence or use of other hats, bringing in discipline and focus.

Questions that can be asked to encourage **green hat** thinking include:

- What are some possible ways to work this out? What are some other ways to solve the problem? What else can we do?