



Critical Thinking 101: How to Solve Unexpected Problems Like a NASA Astronaut

When it comes to making decisions, there's perhaps nowhere more important to make the right one than in space. When you're cruising above Earth a bad decision can have some pretty hefty consequences. Gene Kranz, the director of the Apollo 13 mission is often associated with the phrase "failure is not an option." Fast Company reports his approach to problems is work through them, so you don't "make things worse by guessing."

When faced with an issue, Kranz recommends going through the following steps to come up with a solution rather than going with your gut, which often makes things worse:

1. Define the problem
2. Determine goals/objectives
3. Generate an array of alternative solutions
4. Evaluate the possible consequences of each solution
5. Use this analysis to choose one or more courses of action
6. Plan the implementation
7. Implement with full commitment
8. Adapt as needed based on incoming data

It sounds like a pretty elaborate set of steps to go through, but it's honestly not that different than how I currently handle my own issues. The strategy works for a variety of different problems, not just the kind you come across when you're in a spaceship.

When you calmly lay out your options and realistically think through how each one will play out then you're much more likely to make a good decision.

If you go with your gut and head down a path without thinking it through, then you can (and often do) end up in a situation where your plan fails for some reason and you're making another last-minute gut decision that increases your problem even more.

Slow down, think through your options, and then go all-in on the solution.