

Quick Tips for Team Leaders¹

Gap Analysis and Cause & Effect Analysis²

Jeff Oltmann

Quick Tip – Gap Analysis

Gap analysis is a steering technique. It is like reading a map to determine where you are, where you want to be, and routes to get there. Gap analysis determines the current state, the desired state, and steps to get from one to the other. Applied periodically, it is a useful way to ensure forward progress through the fuzzy front end of a new initiative or project.

When to Use

- You want to start a team off in the right direction.
- You want to align objectives among the team.
- You need to verify that you are still on track.

Procedure

Gap analysis can be an individual or a team activity, depending on who is doing the steering and who you want aligned. If done as a team, gap analysis tends to build alignment and commitment to a shared direction and approach.

Identify and write down the desired state. These are the essential attributes of where you want to be. Depending on what you are steering, the attributes could be project deliverables, product features, or operation parameters. This list of desired attributes should be short and SMART (specific, measurable, assignable, realistic, and time-bound).

Write down the current state of each of the attributes identified in the desired state. The descriptions of current and desired states should describe the situation, not causes or solutions.

¹ This series of “Quick Tips” articles is by Jeff Oltmann, experienced program and technology executive and principal of Synergy Professional Services in Oregon, USA. The Quick Tips offer simple approaches and models for problem analysis, gathering ideas and input from team members, facilitation and taking action. The tips offered in this series were identified or developed over two decades of helping program, project and team leaders get things done in faster, more agile ways. Learn more about Jeff Oltmann in his author profile at the end of this article.

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For example, a desired attribute could be “The charter for the project is ready for review by June 1”, not “Add more developers to get the charter done faster.”

Then for each attribute identify specific actions to get from the current to the desired state, as shown in the example below.

Attribute	As-Is	Desired	Action Steps
Project Charter	Not started as of 7/1	Ready for review by 8/1	1. John write first draft by 7/18. 2. Mary and Fred agree on scope versus cost tradeoff by 7/9. 3. ...

Considerations

1. If the actions to get from current to desired state are not apparent, use other divergence and convergence tools to generate possibilities and select the best options. Popular tools for this include cause-and-effect analysis (Fishbone or Ishikawa diagrams) and flowcharting.

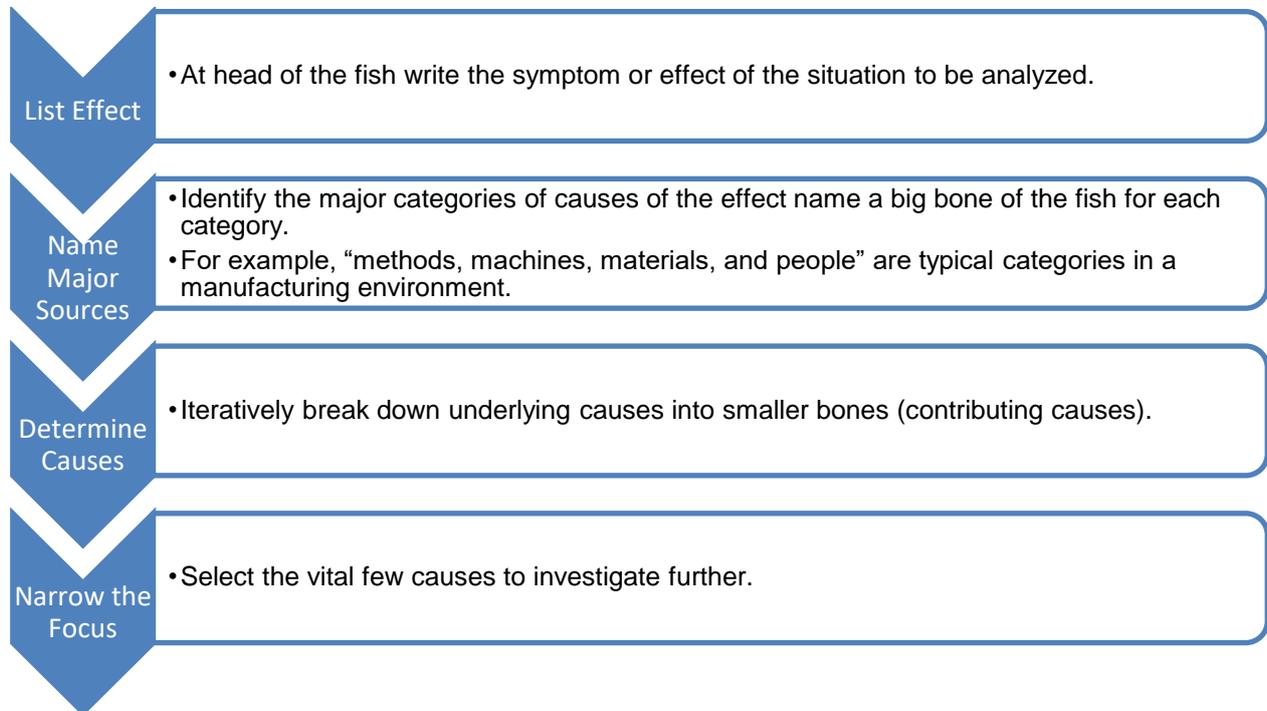
Quick Tip - Cause and Effect Analysis

In 1943 Dr. Kauru Ishikawa developed cause and effect analysis. The technique creates a visual diagram of what causes an observed effect or situation. The diagram shows is usually called a fishbone diagram (after its shape) or an Ishikawa diagram (after its inventor). This technique is a structured way to think about why something is happening, allowing you to focus your limited resources on the most effective way to change the situation.

When to Use

Use this technique when you need to get to the root causes underlying a situation in order to solve the real problem rather than just a surface symptom.

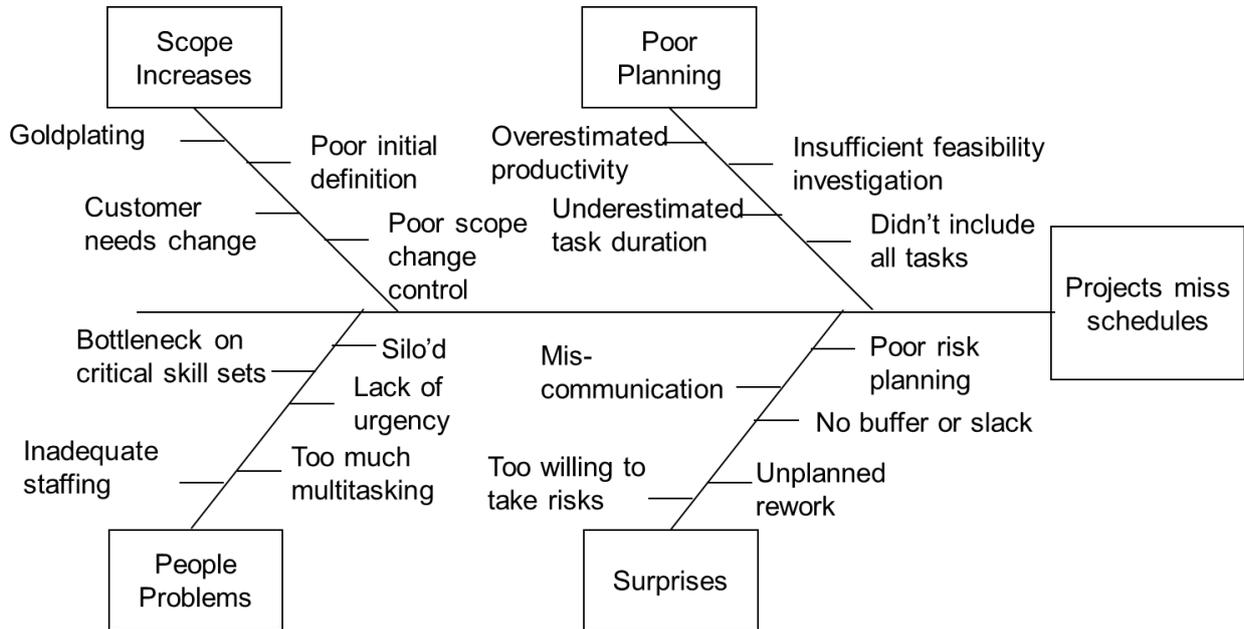
Procedure



Example

The example below shows the fishbone diagram for a situation where projects at a company often finished behind schedule. The company wanted to understand why so many projects were late and where to focus to improve things. Therefore the effect, shown on the head of the fish, is “Projects miss schedules.” The main bones of the fish are the four major categories of things that contributed to past slips, such as poor planning. The smaller bones are causes that contribute to each category.

Note that the diagram is not just a collection of causes. Causes are organized into major categories to help make sure some are not left out. The company found the causes by extensively interviewing the people who worked on projects. It used the affinity clustering technique to figure out the relevant categories for the fishbone, and finally it looked for overlooked causes in each category. Then it was ready to select a vital few root causes to focus on for improvement.



About the Author



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Jeff Oltmann is a seasoned leader with over 30 years of experience advising clients, managing successful technology programs, and developing new products. His specialties include strategy deployment, operational and project excellence, and project portfolio management. As principal consultant at Synergy Professional Services, Jeff advises leaders and teams in diverse sectors including healthcare, research, bioscience, and technology product development.

Jeff is the founder of the Portfolio and Project Leaders Forum. He is also on the graduate faculty of the Division of Management at Oregon Health and Science University and was previously on executive staff at IBM. He teaches portfolio, program, and project management and is a certified Project Management Professional (PMP®).

Jeff welcomes your questions and ideas. You can contact him at jeff@spspro.com or read previous articles at www.spspro.com/article-library.