

## Sailing the Ocean Blue: Historical Review

### Description

In the beginning, ship captains had to chart their own courses as they set off to unexplored lands. There were no records of what ocean conditions they might find as they traveled the globe. Most of the information they had was anecdotal and dependent on conversations or correspondence with other ship captains who had previously explored the same ocean routes.

This was true until a young Navy lieutenant, Mathew Maury, came on the scene in the mid-1800s. While in service, brash Maury suggested changes that made his superiors so angry that he was exiled to one of the worst jobs in the Navy. Maury was given the responsibility to keep the completed logs of every voyage by American Navy ships. Each ship captain recorded current direction and strengths, water depths and temperatures, and wind direction for his voyage. To that point, no one had ever merged all this data into a record of sailing experience that could be easily interpreted by the captains. Maury was able to synthesize and summarize this data using simple charts and graphics.

The first captains to use the new charts were able to shave 17 days and 30 days off the voyage times of previous captains. By setting new sailing records, shipping became a profitable activity. Navy captains began routinely cutting sailing records by one-third. As word of Maury's charts and graphs spread, each captain continued to build on the knowledge of all the captains who sailed before. Maury singlehandedly changed the shape of navigation from an art to a science based upon prior navigational observation and experience.

### Learning Points

Data are often collected by organizations and individuals to record events in the past. Unfortunately, data are too often left to languish unanalyzed and forgotten. Data can be a powerful tool when studied, compiled, and recorded in a way that is easy to interpret. Just as Maury's graphs and charts helped capture and "generalize the experience of navigators in such a manner that each should have before him, at a glance, the experience of all," so, too, can we find trends in the data we have at hand in our own organizations. A key is to represent the data in engaging, easy-to-understand charts and graphs. The Santayana Review Process—looking at and learning from the patterns of history—was an important lesson that Maury shared with his fellow navigators.

### Discussion Questions

**Question:** What opportunities do you have to apply the Santayana Review Process within your organization?

**Answer:** Responses will vary but will include capitalizing on data that are routinely gathered but not analyzed: customer satisfaction data, market research data, training program evaluation forms, personal computer downtime, etc.

**Question:** What might be some of the obstacles in your organization that prohibit the analysis of data in a systematic manner?

**Answer:** Responses may include the following.

- Data may be collected in several different parts of the organization with no central location responsible for analyzing and disseminating the findings.
- Personnel may be untrained in methods to summarize complex data in a clear, comprehensible manner.
- Data may be habitually collected without anyone realizing and applying the power of analysis.

**Question:** What are some of the charts and graphs that we may see or use, even in our personal lives, that help us to understand complex data?

**Answer:** Responses may include:

- weather maps
- population maps
- geologists' drawings of the earth's crust
- Gross National Product trend charts
- yearly import and export charts
- Consumer Price Index

**Question:** What are some of the types of charts and graphs that we use to analyze and summarize data visually?

**Answer:** Responses may include:

- pie charts
- histograms
- bar charts
- cause-and-effect diagrams
- Pareto analysis
- scatter diagrams