

Metrics

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- target staff for education and training opportunities;
- justify FTE increases or decreases; and
- justify technology enabler expenses.

Good luck as you endeavor to improve your organizations financial performance through business process change, and don't be hesitant

to contact neighboring facilities or practices to find out how they are handling data gathering challenges. ■

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Using Concept Mapping to Improve Health Care Decision Making

By Mary Kane and
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Health and human service organizations, both public and private, engage in planning for a wide range of voluntary and mandated reasons. One of the most daunting tasks facing any working group in the health care setting is how to come up with a common framework that can guide their work as a group. Whether you're doing strategic planning for a hospital, creating a new training program for medical practice staff, or attempting to improve the performance of your workforce, you need to have a better way to bring together the different stakeholders in your organization and help them rapidly form a shared vision for what they will do.

How do most health care organizations do this today? By way of seemingly endless committee meetings that end up with walls covered by flip chart sheets or post-it notes. And the result? Reports and plans that are, more often than not, ignored. Concept mapping presents a different way to value the input and knowledge of stakeholders and uses state-of-the-art technology and processes to create a common strategic vision.

In about four hours time participants brainstorm a large number of ideas in a facilitated meeting or over the Web from anywhere in the world. Participants then sort and rate the brainstormed ideas. A powerful software program groups the ideas into the "big picture." This picture, or concept map, illustrates graphically all the ideas in a series of idea "clusters." These clusters or groupings of ideas can then be used to encourage better team decision-making.

Using concept mapping has enabled many different kinds of health care organizations to prioritize ideas, assess consensus, determine

gaps and develop more effective action plans. It is really a better way to put ideas in action.

Case Study, St. Mary's Hospital in Amsterdam, New York¹

Hospitals organizational planning needs are often best met through a strategic planning exercise. The most successful strategic planning activities are highly participatory and gather data from many sources. But this process can be time consuming and slow to develop consensus. In the case of St. Mary's Hospital in Amsterdam, N.Y., the potential for a corporate merger and service expansion activities further complicated the planning process. The situation required a rapid planning process that would include high levels of participation and generated a product to inform operational planning and serve as a marketing tool. After two planning meetings with key administrators, a concept mapping exercise was conducted. In two meetings of approximately five hours total, board members and department heads created a concept map and related database that was used as the basis for completing operational plans.

Case Study, York County Maine²

York County in the state of Maine needed to coordinate its health and mental health services more effectively. A broad cross-section of service providers mapped the major service issues and needs. This initial map showed that, while there was considerable overlap of services in some areas, there were far too few services available for the elderly. This led them to develop a second map that concentrated on the

kinds of services they might provide the elderly. This second map led them, among other things, to the realization that there was a population of “well elderly” that had considerable power and financial resources but were primarily concerned with issues of immediate significance to themselves (*e.g.*, socialization activities). They formulated a plan to engage these “well elderly” in advocacy for services for the elderly who were more in need of services and less able to help themselves.

Case Study, Southern Tier Health Services Network³

In rural areas of the country, the importance of bringing service providers, consumers, and the public together for improving access to services is a high priority in today’s society. Perhaps this need is felt nowhere as keenly as in the area of community health. Rural health networks in New York State are among the best developed and resourced in the United States; however, they struggle with issues of participatory planning and action. The concept mapping process was used in a half-dozen different applications to develop consensus and direction for these groups. The stakeholders represented 25-35 citizens and service providers who came together to identify “health network priorities” and areas of service that address community needs.

The Southern Tier Health Services Network developed a set of priorities for future action. Within two meetings they had maps and databases that indicated program priorities and the ability to disaggregate data to determine the “political” realities of competing priorities within the network. These same databases were used as the basis for program evaluation and management of program operations.

Creating A Pattern Match

By working with concept maps, a group of people can rapidly explore the relative importance of different ideas and use this shared vision as the basis for further action. Pattern matching allows you to compare, both visually and statistically, two ratings from a concept map in order to explore consensus, track consistency over time or evaluate outcomes relative to expectations.

Pattern matches are based on the information in a concept map. To create a pattern match, you simply decide what you want to measure and select the groups you want to

compare. The Concept System does the rest for you.

Pattern matching can be used to:

- assess consensus by comparing the views of different stakeholder groups, *e.g.*, managers vs. line staff or one department versus another;
- relate the importance of various program elements to the financial support given to them;
- match expectations for a project with the work accomplished to date;
- track the consistency of performance over time; and

See *Concept Mapping*, page 7

Creating a Concept Map

It takes only a few simple steps to create a concept map:

1 Project planners **develop the focus of the project**, such as the components of a new training program or the strategic performance objectives for their organization;

2 Project planners **identify participants** from staff and stakeholders;

3 Group **generates ideas** over the web using internet software or in a facilitated group session using the Concept System Core Program;

4 Participants **organize the ideas** by sorting them into groups of related ones and **rating them according to a**

one or more 1-5 scale (i.e., importance or feasibility);

5 Using state-of-the-art software and analytic methods **map the ideas** for the entire group, and provides a single graphic that acts as a roadmap or blueprint for subsequent work;

6 Project planners and/or participants **interpret the maps**, discuss how the ideas are organized and identify the critical high priority areas;

7 Organization **utilizes the maps** to organize for action, examine consensus and evaluate subsequent actions.

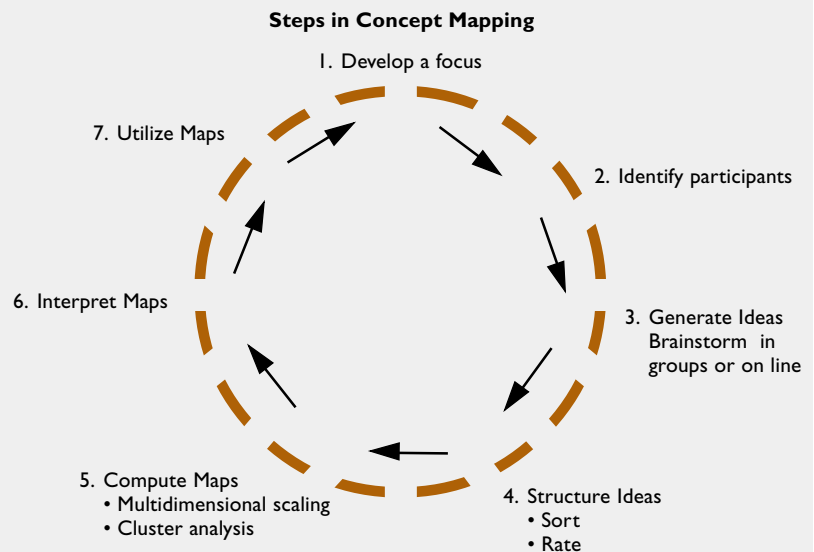


Figure 1: The Concept Mapping Process

Reading A Concept Map

Concept maps pack an enormous amount of information into a concise, readable graphic. This example shows a strategic planning project.

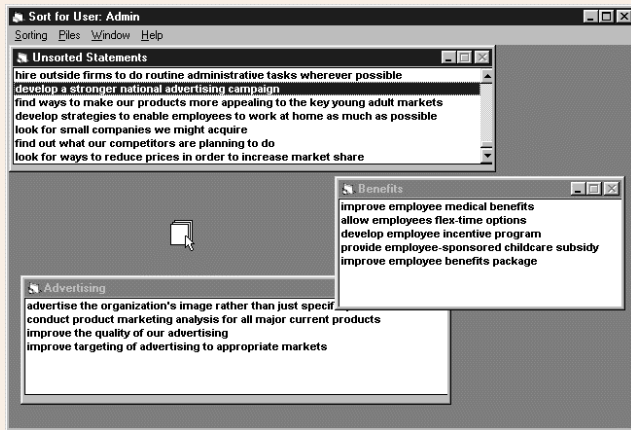


Figure 2: Ideas are brainstormed and then sorted and rated by each participant

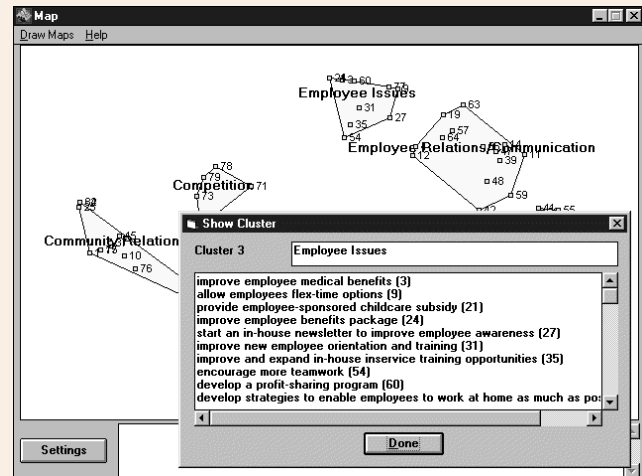


Figure 3: The Concept System software automatically takes the sorted ideas, clusters them into concepts or groups of ideas and places them on the map. This example shows the brainstormed ideas that were grouped into a cluster called Employee Issues.

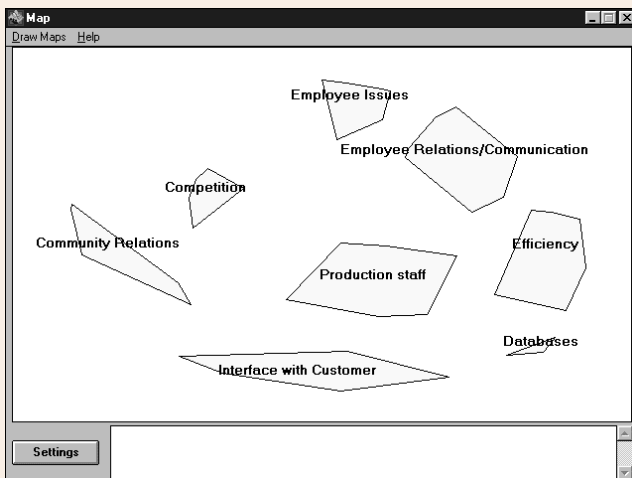


Figure 4: Clusters that are closer together are more similar in meaning than ones that are farther apart. For example, the Employee Issues cluster is closer to (more similar to) Employee Relations/Communications than it is to the Databases cluster. Participants interact directly with the map to examine different arrangements of ideas.

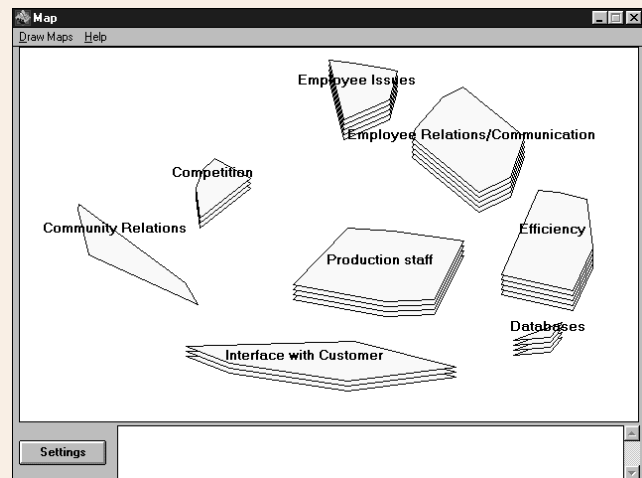


Figure 5: In this case, the layers in the clusters show the relative importance of that topic. (To compare subgroup ratings, use pattern matching.) Here, Efficiency and Employee Issues are considered by the raters to be the most important while Community Relations is judged least important.

Concept Mapping

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- assess how well outcomes or results meet the group's expectations.

The pattern match in the box at right shows the level of consensus between managers and staff working on a strategic planning project.

At this point in the process the final concept map might be used to enhance either a planning or evaluation project. The uses of the map are limited only by the creativity and motivation of the group. The planning group might use it for dividing up into subgroups or task forces, each of which is assigned a specific cluster or region. Each task group could then examine issues like: the organizational budget allocation for each cluster, how organizational personnel are distributed within each cluster, how important each cluster is relative to the others, how consensus be improved, what resources might be brought to bear in addressing each cluster, what level of competition exists from other organizations providing services in each cluster, and so on.

Concept mapping can bring order to a task that is often extremely difficult for groups or organizations. First, it encourages the participant groups to stay on task and layout a framework or focus for a project relatively quickly. Second, it expresses the conceptual framework in language participants and stakeholders can understand. Third, it results in a graphic representation that at a glance shows all of the major ideas and their interrelationships. Fourth, this graphic images are understandable to all of the participants and can be presented to other audiences relatively easily. Finally, observations over many concept-mapping projects clearly show that groups are more cohesive, morale is enhanced and decision-making is improved. ■

References

1. This project was performed in conjunction with Don Tobias, PhD and William Trochim, PhD Department of Policy Analysis and Management at Cornell University.
2. This project performed in conjunction with William Trochim, PhD., Department of Policy Analysis and Management at Cornell University.
3. This project performed in conjunction with Ken Oakley and the Southern Tier Health Care System, Inc.

Pattern Matching

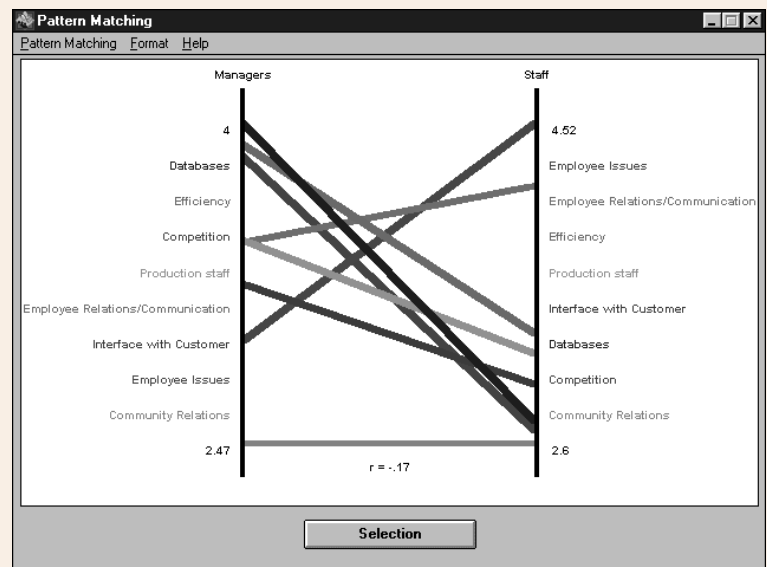


Figure 6: This pattern match shows the level of consensus between managers and staff working on a strategic planning project.

1 The labels on each side are the same labels that were used for the clusters in the concept map. The order of the cluster labels from top to bottom shows the order of importance for each group.

2 Color-coded line for each cluster links the average importance ratings of the managers and staff. Sharply angled lines suggest a "disconnect" between groups; horizontal lines suggest agreement. Here, there is a clear disconnect between managers and staff on the importance of Databases and

Employee Issues while the two groups agree that Community Relations is lowest in importance.

3 Each pattern match generates a correlation, a number that indicates the overall degree of agreement between the groups. Correlations range from +1.0 (perfect agreement) to -1.0 (opposite views). Here the low correction of -.17 indicates there is little overall consensus between staff and management (even though they may agree well on certain topics like Community Relations).

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