

Moving from Theory to Action: Using an Action Map to Guide the Way

**Vicki Tardino, Kimberlee Einspahr, Matt Grawitch,
Stephen Axelrad & Jennifer Joerding**

**Department of Psychology and Center for
Organizational Learning and Renewal
Saint Louis University**

**Poster presented to
*Saint Louis University 8th Annual Research Day Symposium, April, 5, 2002.***

Moving from Theory to Action: Using an Action Map to Guide the Way

In recent years the concept of organizational learning has received widespread attention as a mechanism for achieving sustainable competitive advantage (Daft, 1998; DeGeus, 1988; Drucker, 1994; Garvin, 2000; McGill & Slocum, 1993; Senge, 1990; Senge, Kleiner, Roberts, Ross & Smith, 1994; Shaw & Perkins, 1992; Stata, 1989). According to this view, adaptation to environmental pressures is necessary but not sufficient for organizational success or sustainable change; it is the **speed and capacity for learning and innovation that matter**. A growing body of literature explores the theoretical issues of organizational learning at the individual, team, and organizational levels, and from a variety of disciplines. Even with this conceptual backdrop and the recognition of the need for organizational learning capacity, the principles of organizational learning often are viewed as difficult to apply.

This case study describes a tool that can be used to bridge the theory-practice gap and illustrates a process for using it. *Our intention was to employ a method to apply theory so as to allow for stringent tests for validity* (i.e., intersubjectively verifiable data, explicit inferences, disconfirmable propositions, and public testing) *while building awareness of difficult issues.*

An *Action Map* (Argyris, 1985; 1990, 1993; Putnam 1993) was used to guide and focus an **organizational learning intervention** with a management team. Specifically, it was used to organize interview data to promote learning and action; it highlighted barriers to learning and key developmental opportunities for the team. Ultimately, this process served as a vehicle for translating organizational learning principles into practical application.

The Context

The primary client in our intervention was a team of functional managers of a bank who were responsible for different aspects of mortgage lending and the senior manager to whom they reported. The organization had undergone dramatic changes in the previous two years, shifting from a mutually held and largely family-run operation to a more progressive publicly held organization. Along with this change came new management and functional experts, plucked from the top performers of the larger local banks. Despite these managers' individual strengths and expertise, a ***breakdown occurred in translating individual knowledge across functional boundaries***. Although they were satisfied with having achieved the financial results they wanted, they were also experiencing what they termed ***“personality conflicts”*** that threatened sustained progress toward these ends.

The Intervention Method

Interviews and Data Analysis

Interviews were conducted with each manager to gather basic information about their **working relationships, decision-making practices, and conflict management strategies**. One thing that distinguished these interviews from others was the **deliberate focus on uncovering *mental models* about key variables** -- individual and group assumptions, stories and frameworks about “how the world works” that influence perceptions and actions. Our intentions were to deepen our understanding of their stances toward important issues (e.g., conflict), and to illustrate organizational learning concepts in a way that would stimulate thinking and acting.

After poring through the interview transcripts and conducting our preliminary analysis we were faced with the tasks of arranging the data to enhance our own understanding of the whole, and deciding on the best and most parsimonious feedback mechanism. We wanted a method that would energize the group around their data, and provide impetus for ongoing improvement efforts (Nadler, 1977). Having based our own interviewing process on the same theoretical foundation supporting the action mapping process, namely ***action science and organizational learning***, we were in a good position to take advantage of its features. **We saw an action map as a way to meaningfully organize the interview data.**

An action map is a visual representation of hypothesized relationships between 1) the conditions leading to action that serve as criteria for assessing the effectiveness of action (i.e., “governing conditions”; Argyris, 1985; 1993), 2) the actions taken, and 3) their observed and potential consequences.

These maps are useful for *diagnosing ineffectiveness and for designing future action* (Argyris, 1985, 1993). The validity of the representation of the current state is a key feature in organizational improvement (Argyris, 1993; Argyris & Schön, 1978; Nadler, 1977).

This framework was attractive for several reasons.

- It captured the interview themes neatly, improving our understanding of the dynamics operating within the team and facilitating the design of targeted management development activities.
- We imagined it would provide a logical structure for processing interview data, and serve as a “hook” to make the team’s issues and organizational learning concepts relevant to them.
- Above all, it helped us to *identify defensive routines* (i.e., actions that serve to protect us from embarrassment or threat and that inhibit learning), and to help the team reflect on how their actions might be incongruent with their aspirations.

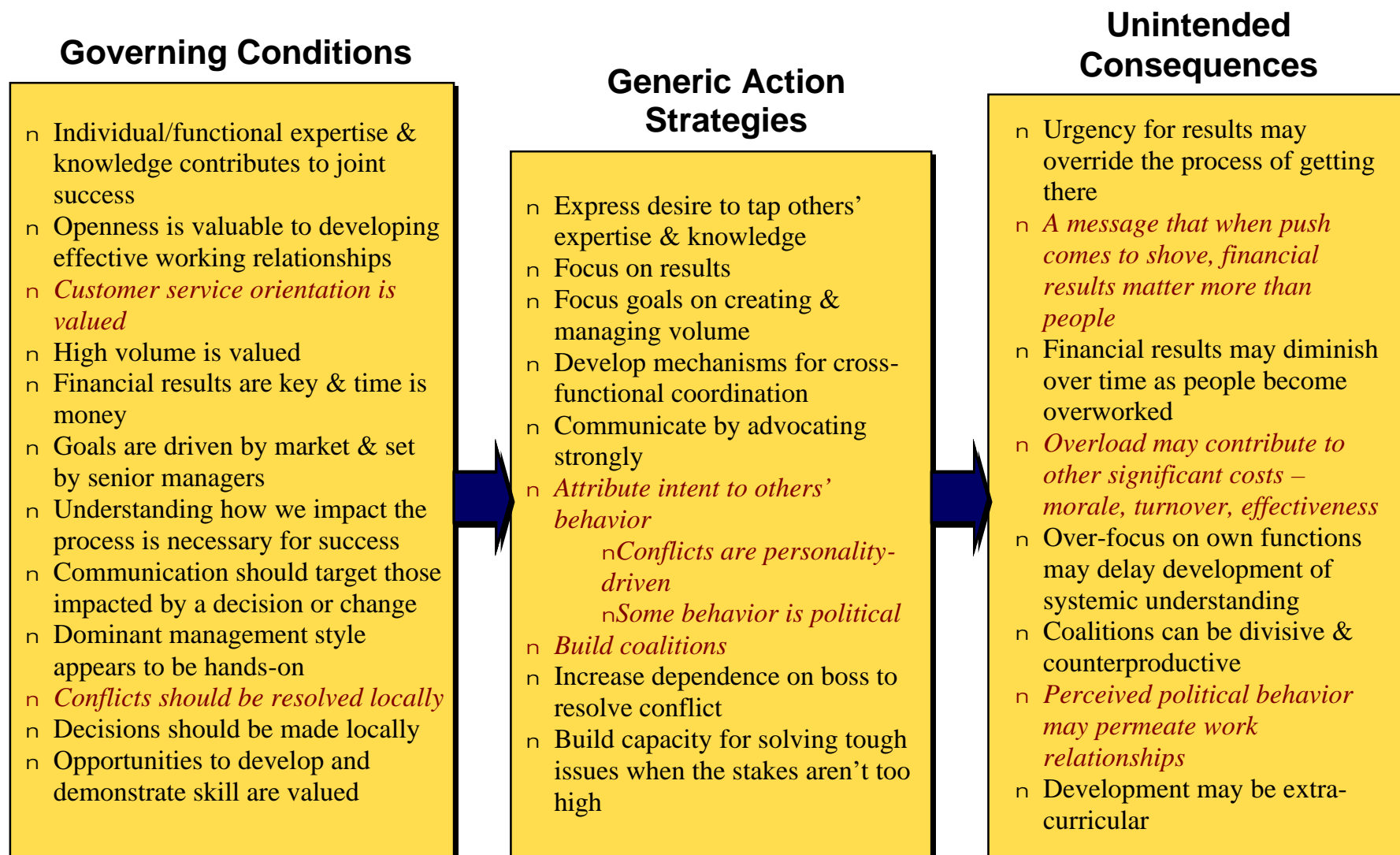
The final **Action Map** (shown in Figure 1) depicted three major elements:

- ***Governing Conditions*** represented the values and philosophies that the group espoused (e.g., “openness is valuable to developing effective working relationships”). These conditions were not prescriptive; rather, they comprised direct expressions of the team regarding what *they* considered important.
- ***Generic Action Strategies*** represented the team’s typical ways of acting (e.g., “build coalitions”).
- ***Unintended Consequences*** represented actual and potential outcomes for the team and organization that were described in the interviews or inferred from the data (e.g., “a message that when push comes to shove, financial results matter more than people”).

Mental Models that were hypothesized to exert influence at the group level were also incorporated into the map (e.g., conflict is *personality-based*).

The map was based on the team’s *collective perceptions of their behavior* and was deemed incomplete and hypothetical until the team had an opportunity to jointly reflect on and test its components.

Figure 1: The Functional Managers' Action Map – Hypothesized Components and Patterns



Italicized text refers to items that were prioritized by the team as *most critical*.

Hypothesis Testing

Validity checks at the **individual level** occurred during interviews. Interviewers confronted interviewees regarding their inferences about major variables (e.g., conflict, teamwork), seeking out the data (i.e., what they saw or heard) that led to their conclusions. This data was used to construct the map.

In testing validity at the **group level**, we sought to understand **gaps between what they espoused to do, and reports of how they actually behaved**. To do this, causal claims of the action map can be tested in the following ways (Argyris, 1993):

- **Show the map to the team and allow disconfirmation**
- **Observe behavior and seek disconfirmation**
- **State predictions and seek disconfirmation (no timeframe)**
For example, “No actions will be reported or observed that will alter the pattern in the map.” In this case, any change in the pattern that doesn’t result from an intervention program is considered disconfirmation.

The scope of our work allowed us to use the first two criteria with the managers.

Testing the Map: Data Feedback

“**T**o create organizations that learn, members must develop a shared understanding of how local rationalities interact to create organizational incongruities” (Putnam, 1993, p. 1). As a first step toward that end, we convened the team for **feedback**. This meeting served as our first check of validity of the map’s contents (Argyris, 1985).

During the session, we facilitated a sequenced discussion of each component of the map. At each step, the team was given the opportunity to validate or reject the information for that component. **Changing any feature of the map required the production of *testable propositions***. Dialogue led to elaboration and clarification, but no objections to the basic components. In this sense, the map validated what we heard in the interview process.

Feedback sessions organized around maps for action are successful to the extent that they stimulate discussion of the data (Argyris, 1985). In this case, the map represented a ***“causal puzzle” rather than a causal structure*** (R. Putnam, personal communication, December 29, 2001) that became a springboard for reflection on inconsistencies and for testing and revising the map.

Testing the Map: Management Development

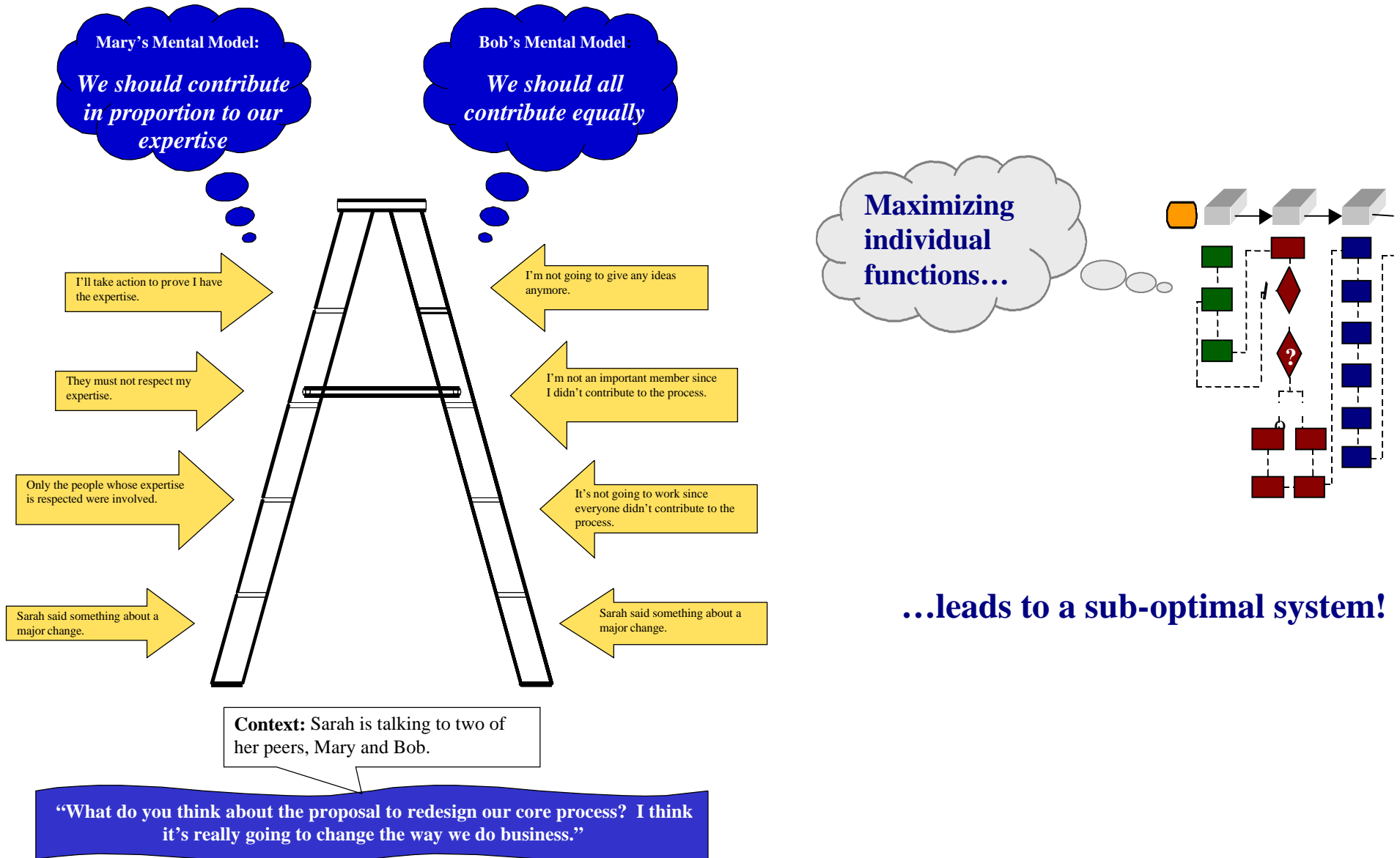
We found that the concepts in the action map were useful to guide and target management development activities that provided **additional opportunities for testing the map**. Argyris (1985) suggests that **aspects of the map can be tested if learning activities are developed from it**.

For example, content of the Action Map was used to **illustrate the escalation of conflict** stemming from structural and personal causes. In general, the map was a convenient reference point for discussing the team's mental models, actions and unintended consequences related to conflict management, decision-making, and teamwork. In this case, it lay the groundwork for exercises that directly applied the team's own mental models to hypothetical situations. (See Figure 2).

One such exercise is the *Ladder of Inference*, which demonstrates how our mental models influence our interpretations of "facts" and the actions we take as a result.

Another application of Action Map content related to **systems thinking**. We used the team's mental models regarding their core business process (e.g., "maximize my function") to show the unintended consequences downstream in the system as a whole (e.g., "sub-optimize the system").

Figure 2: Management Development Applications – Ladder of Inference and Systems Thinking Examples

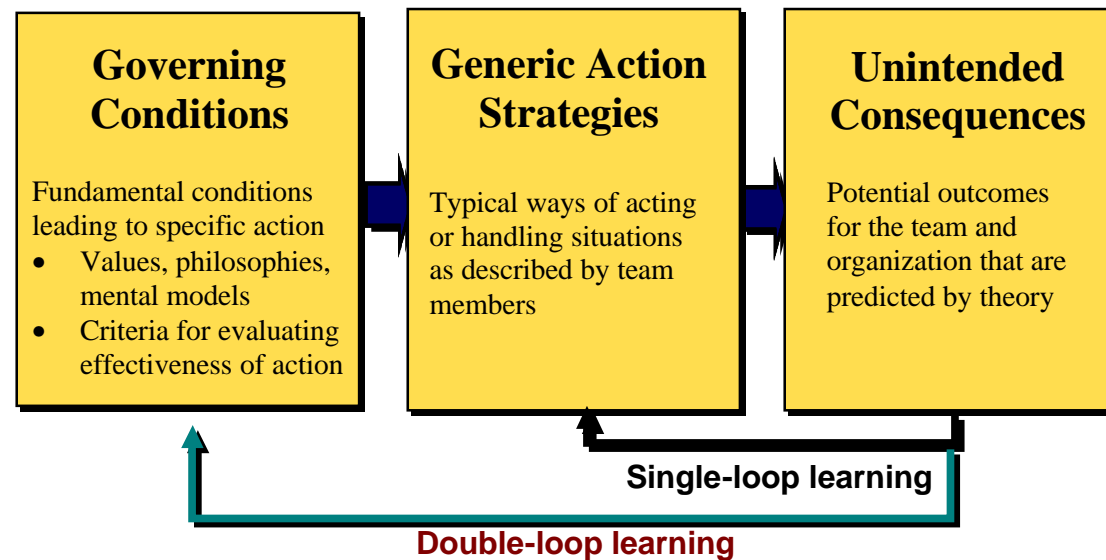


Conclusions

Things to Consider...

- Action mapping is a confrontational approach to understanding barriers to learning that requires high levels of trust and openness. *Not every team will be ready for this type of intervention.*
- Action mapping is an **iterative process** that is based on an **action science** approach. It is fundamentally based on providing opportunities for valid information, informed choice, and internal commitment to action.
- Our use of action mapping depended *primarily* on interview data rather than on behavioral observations of group interactions. The next step and higher leverage for change would involve **identifying the extent to which these patterns play out over time, and in what ways** (i.e., specific interrelationships) (See Figure 3).
- Organizational learning is **not quick fix**. A commitment of time, resources, and a willingness to go deeper is required for fundamental change to occur.
- Our action map represented only one aspect of an ongoing intervention. Understanding its impact will take time and continued testing.

Figure 3: Moving from “Causal Puzzle” to “Causal Structure”



Continual testing of the map should clarify the relationships between the components and *validate the causal structure behind the team’s behavior*. While feedback and management development opportunities provide initial mechanisms for this testing, continued reflection on *actual* team scenarios is required.

Single-loop learning involves simple problem solving, while *double-loop learning* incorporates reflection on the cause and recognizes that how the problem is defined and resolved may contribute to its maintenance (Argyris & Schön, 1978; Argyris, 1990; 1991; 1993). The latter is required for redesigning negative causal structures.

Using Maps for Action

The Action Map can ...

- be used to **structure interviews** in the context of organization development interventions
- serve as a template to **explicate hypotheses** to be tested through behavioral observation
- be coupled with **continuous improvement** practices like process mapping to examine the fundamental assumptions, values and mental models that maintain ineffective work processes and lead to unintended consequences
- help **focus on “tough issues”** such as organizational defensive routines and the structures that maintain them as well as **build capacity** to redesign them
- **be used to make organizational learning exercises relevant and practical – to close the gap between theory and practice**

References

- Argyris, C. (1985). Making Knowledge More Relevant to Practice: Maps for Action, in E. Lawler III, A. Mohrman, Jr., S.A. Mohrman, G. E. Ledford, Jr., T. G. Cummings & Associates (Eds.), *Doing Research that is Useful for Theory and Practice*, 79-106, San Francisco: Jossey Bass.
- Argyris (1993). *Knowledge for Action: A Guide for Overcoming Barriers to Organizational Change*. San Francisco: Jossey-Bass.
- Argyris (1994). Good Communication that Blocks Learning. *Harvard Business Review*, 4, 76-85.
- Argyris, C. & Schön, D. A. (1978). *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley.
- Daft, R. L. (1998). *Organization Theory and Design*, 6th Ed. Cincinnati, OH: South-western College Publishing.
- DeGeus, A. (1988). Planning as Learning, *Harvard Business Review* 66(2), 70-74.
- Drucker, P. F. (1994). The Age of Social Transformation, *The Atlantic Monthly*, 5, 53-80.
- Garvin, D.A. (2000). *Learning in Action: A Guide to Putting the Learning Organization to Work*. Cambridge: Harvard Business School Press.
- McGill, M. E. & Slocum, J. W. Jr. (1993). Unlearning the Organization, *Organizational Dynamics*, 67-79.
- Nadler, D. A. (1977) *Feedback and Organization Development: Using Data-based Methods*. Reading, MA: Addison-Wesley Publishing Company.
- Putnam, R. (1993). Unlocking Organizational Routines that Prevent Learning. *The Systems Thinker*, 4(6), 2-4.
- Senge, P. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Currency Doubleday.
- Senge, P., Kleiner, A., Roberts, C., Ross, R. & Smith, B. (1994) *The Fifth Discipline Fieldbook*. New York: Currency Doubleday.
- Shaw, R. & Perkins, D. (1992). Teaching Organizations to Learn, In D. Nadler (Ed.), *Organizational Architecture*, 175-192.
- Stata, R. (1989). Organizational Learning: The Key to Management Innovation, *Sloan Management Review*, Spring: 63-74.

Earlier versions of this poster were presented at:

Applied Experimental Psychology Conference, Southern Illinois University-Carbondale, September 22, 2001

Gateway Industrial/ Organizational Psychologists Poster Session Bridging the Gap: A Forum for Theory, Research, and Practice, Saint Louis, Missouri, March 28, 2001.

A paper describing this intervention is also available:

Staebler Tardino, V. M., Einspahr, K., Dean, D. N. & Kramer, T. J. Bridging organizational learning theory and practice: Case study of the Action Map process. Journal article submitted to *Management Learning* April 1, 2001.

Visit the COLR website at <http://www.slu.edu/colleges/cops/colr/> or e-mail Vicki_Tardino@alumni.umass.edu.