

"What lies behind us and what lies before us are tiny compared to what lies within us."
– Ralph Waldo Emerson

Whole-Scale[®] Change

Kathleen D. Dannemiller, Sylvia L. James and Paul D. Tolchinsky, Ph.D.

A Story about the Use of Whole-Scale™

The Business Situation. Ferranti-Packard Transformers, Ltd., part of Rolls Royce of the United Kingdom, manufactures power transformers for public utilities and industrial clients in three plants located in Ontario, Quebec and Mexico.

In late 1995, Pierre Racine became the fourth CEO in three years for all the Ferranti-Packard Operations. The outlook for the Ontario plant was bleak. The plant had lost money for several years and anticipated losing \$4.5 million in 1995. A flat market, tough competition, high quality costs, and delivery problems plagued the operation. Mistrust, cynicism and hostility characterized management's relations with the three locals of United Steel Workers. The company needed a way to unite management, union leaders and workers in developing and implementing a new strategy.

A Whole-Scale[®] Intervention. Racine's arrival was a clear signal that change was inevitable, and a Whole-Scale[®] event was the method he chose to jumpstart the process. Management closed the plant and took all staff off-site for a two-day meeting that Racine hoped would bring about rapid, plant-wide transformation. The 280-person event brought together all employees and suppliers to fully participate in the process.

A 23-person "Event Planning Team" consisting of people from all levels and functions of the company structured the event. This team figured out what people needed to discuss, considered how people should approach the issues, and identified ways to move immediately to action. Whole-Scale[®] consultants facilitated the planning meetings as process experts, while the Event Planning Team members served as content experts. The consultants used the same process and underlying principles during the planning sessions that they would use in the larger event. They saw the Event Planning Team's reactions as a measure of what would and would not work. In this way, the planning sessions provided a constant reality check on the developing design.

A logistics team set up spaces and made sure all the "props"—from handouts to lunch—were available when needed.

Event Outcomes. The first and most important outcome of the two-day event was that the people of Ferranti-Packard saw the world differently when it was over. They heard an industry expert tell them that their market was stagnant. They learned that their competitors were producing better quality products faster and at lower cost. They also heard from their customers. One ex-

customer said, “We’re not trying to put you folks out of business. You are doing that job yourselves.” But another major customer, Westinghouse, told them, “If you can shorten your delivery times from 28 weeks to nearer the industry standard of 20 weeks, I can fill your plant.” These hopeful words made a paradigm shift possible. All participants were able to discover something they could do to help create the competitive company they wanted.

The tangible deliverable of the event was a working strategy for the plant that everyone had a hand in creating. The strategy included 100 specific public commitments for action from 24 functional groups, including the supplier group and the Leadership Team. People began acting out of the new strategy even before they left the meeting.

The intangible outcome was just as important. Participants worked together as a “Ferranti-Packard team,” and took responsibility for shaping their shared vision of the future and planning steps to move toward it.

Results After One Year. By June 1997, the future of Ferranti-Packard in Ontario looked very different:

- ◆ Cycle times for product delivery were down from 28 weeks to 18-19 weeks, making the plant “world-class” in that category.
- ◆ The cost of quality (scrap, rework) was down from 8.6 percent of sales in 1995 to 3.4 percent in 1996.
- ◆ Sales were up from \$40 million in 1995 to \$50 million in 1996 and were projected to be \$60 million in 1997.
- ◆ Shop-floor employees on cross-functional teams were addressing long-standing process problems in the plant.
- ◆ In the spring of 1997, all three locals of the United Steel Workers agreed to new three-year contracts.
- ◆ Union grievances dropped significantly in the plant.
- ◆ The plant trimmed its losses from \$5.5 million in 1995 to \$1.5 million in 1996.
- ◆ Rolls Royce approved investment in major new plant equipment based on the improvements in financial performance.

Answers to Frequently Asked Questions about Whole-Scale

What Is It? Whole-Scale[®] was born in 1981 when Ford Motor Company, seeking to move its management culture from “command and control” to a more participative style, brought in Al Davenport, Bruce Gibb, Chuck Tyson and Kathleen Dannemiller to design and facilitate the change. The method that emerged from this initial work has been used for nearly two decades and has helped hundreds of organizations. Although each situation is different, the basic direction of Whole-Scale[™] is the same: to help organizations uncover and engage the combined knowledge, wisdom and heart of their people to meet the challenges of a changing world.

Whole-Scale[®] is the trademarked name for the work developed as Large Group Interventions and Real Time Work Design (invented by Paul Tolchinsky and Kathie Dannemiller) that began in the

early 1980's. It consists of a series of small and/or large group interactions that enable the organization to undergo a paradigm shift. It applies an action learning approach, using Whole-Scale™ events as accelerators. Using microcosms, groups that represent the entire range of levels, functions, geography and ideas in the organization, Whole-Scale™ processes provide a powerful way of working with the whole system to create and sustain change.

Whole Scale™ also enables a “critical mass” of the organization to create a new culture *in the moment*. The same critical mass then models what the organization can look like and becomes the vehicle by which powerful change occurs in the whole system.

When To Use It. Whole-Scale™ works well to facilitate all kinds of change processes, including strategic planning, organization design, mergers and acquisitions, quality management, re-engineering, training, diversity and culture change. It works well in both the public and private sectors, is amenable to groups ranging in size from ten to several thousand, and can engage people from the top of the hierarchy down through the front line staff. Organizations most likely to consider a Whole Scale™ intervention are those (1) that want to engage everyone or nearly everyone in creating their organizations (processes and structures) and (2) those with a sense of urgency brought on by a challenging and quickly changing environment. With clear strategy, strong leadership, adequate training, and system-wide follow-through, Whole Scale™ processes effectively facilitate rapid system-wide change under many different circumstances, and in a wide variety of countries, cultures and organizations.

A Whole-Scale™ change project is a complex undertaking requiring a great deal of attention at startup to ensure later success. Organizations are usually in the midst of one or more change projects as they explore the possibility of undertaking a Whole-Scale™ effort. Many times these projects have different goals, are in different parts of the organization, and are not connected. Whole-Scale™ facilitates integration and synergy across these discrepant activities.

Whole-Scale™ includes robust processes that quickly change client systems and prepare them for further substantive change by:

- ◆ Clarifying and connecting multiple current realities
- ◆ Uniting multiple yearnings around a common picture of the future
- ◆ Reaching agreement on the action plans that move them toward that future
- ◆ Building the processes, structures and relationships that keep the organization moving forward
- ◆ Aligning the organization leaders and employees so that they can implement the changes together

Once the organization experiences the paradigm shift, people see the world differently. They are ready to take the actions that will begin to transform their shared vision into their shared reality.

How It Works. The Event Planning Team and consultants develop the design for a Whole-Scale event using a formula for change inspired by Dick Beckhard. The formula, $DxVxF > R$, says that if an organization wants to bring about system-wide change, they will need to work with a critical mass of the organization to uncover and combine their Dissatisfaction (D) with things as

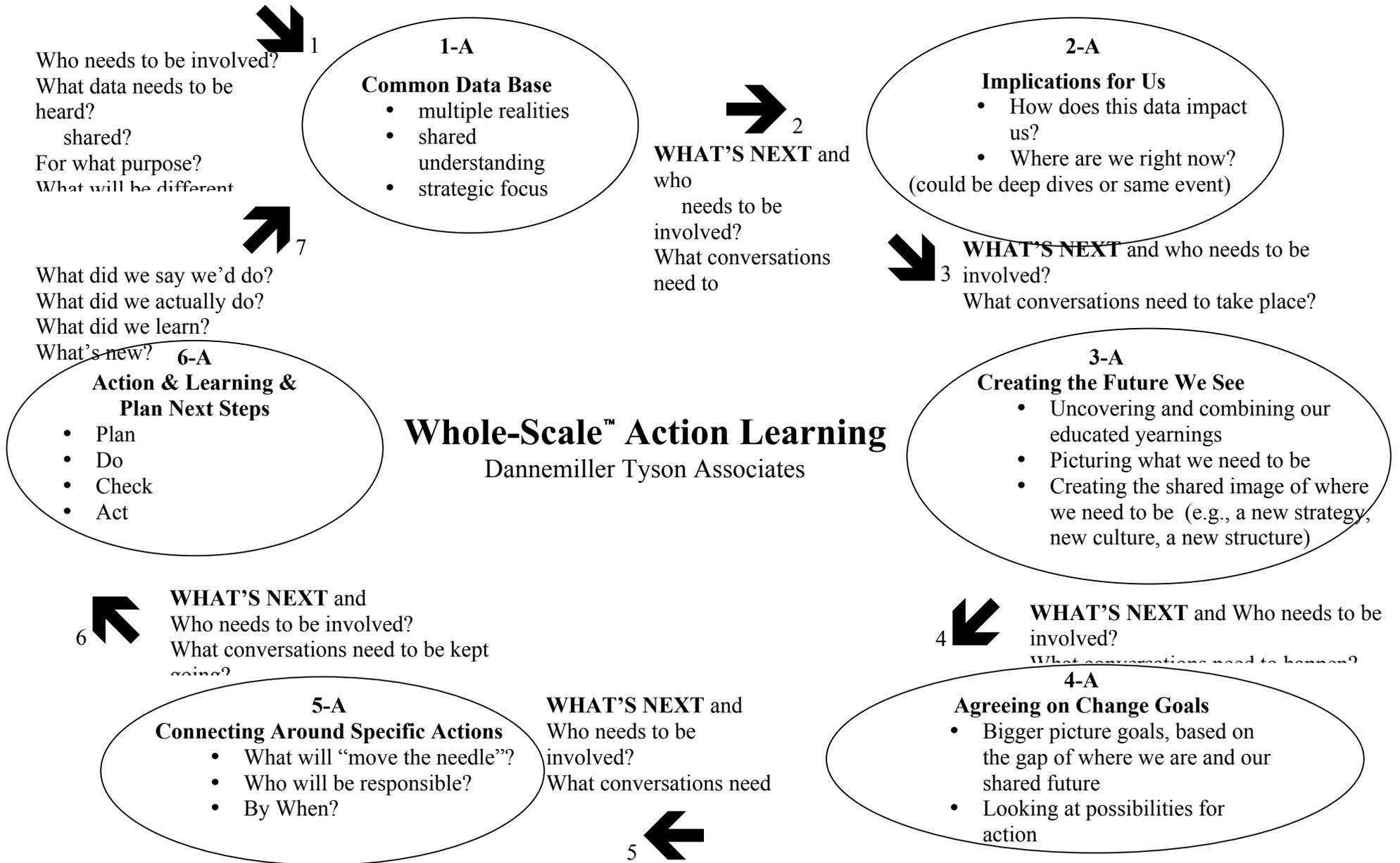
they are. Then the next step will be to uncover and combine the yearnings for the organization they truly want to be, their combined Vision of the future (V). If real change is going to happen, the third design element needs to be first steps (F), a combined picture of things people can do differently that *all* of them believe are the right ones to achieve their vision. Simple math suggests that if any of the left-hand elements in the formula are missing, the product will be zero, and the change effort will not be able to overcome resistance (R). People will resist change if they don't have Dissatisfaction, Vision and agreed upon First Steps.

The DVF formula describes what an organization needs to do to enable a paradigm shift. If the organization can uncover and combine all three elements, everyone will shift into a new "world view." At this point, neither individuals nor whole groups can comfortably keep doing what they were doing. Change has already begun.

Clients help decide which element to address first, but they need to address all three elements eventually if they want to achieve sustainable change. The resistance to change that is inevitably present is a resource. It tells consultants and leaders what they need to know and where the points of leverage exist that will enable them to facilitate real change.

The Whole-Scale process is a never-ending one, as shown in Figure 1.

The following roadmap is a picture of how we see continuous learning in an organization using the Whole-Scale™ processes:



1 This is a point where you might be beginning a system-wide change process and you would (as an event planning team) be asking and acting on the issues.

People in organizations learn to ask the right questions and to develop a common database from which they create a shared vision. Then they agree on change goals and connect around specific actions. Following Deming's "Plan – Do – Check – Act" cycle gives them results to evaluate, and then the process begins again. It traces an ever-deepening spiral into the mind and heart of the organization.

Cost Effectiveness. Whole-Scale™ is cost effective because it enables an organizational paradigm shift to occur, and this shift produces fast results. When people fully understand the speed with which the world is shifting, they yearn to change their organization with the same urgency. Rapid Whole-Scale™ change costs less than traditional top-down cascade methods.

Getting Started with Whole-Scale

The first step in using Whole-Scale™ processes to bring about organizational change is to clearly define the strategic purpose of the change effort. Regardless of the "presenting issue" (e.g. work design, culture change, quality improvement), the leaders and the consultants must clearly define how the outcomes of the change will support the business strategy.

Guiding Principles. Whole-Scale™ will work for any consultant and client combination if both believe in the following principles:

- ◆ An organization must understand its past and present in order to create its future.
- ◆ It is impossible for an organization to plan effectively without knowing the future it wishes to achieve.
- ◆ Having a microcosm of the whole organization together enables the organization to change in real time, both incrementally and in a major paradigm shift.
- ◆ The wisdom is in the people and when you connect people, they will have all the wisdom they need to find the answers.
- ◆ Solutions must focus on the interconnectedness of people, processes and technology. Solutions that focus on only one of these will probably not work long term because they will not be systems solutions.
- ◆ People support what they help to create.

Roles, Responsibilities and Relationships

Sponsorship Requirements. It is essential to prepare senior management to function as a leadership team, capable of managing the change process. People yearn for effective leaders, and Whole-Scale™ processes make those leaders very visible. The work of leadership is to communicate boundaries, charter teams to work on the changes, provide resources, direction and support, and oversee implementation of the work between large-scale events. Sponsorship requires leaders to be involved throughout the process.

An organization's leaders must agree to participate in creating a common database—both by speaking and by listening. The definition of leadership varies by organization. In some, the leadership includes union and management leaders; in some, leadership is a steering committee

for the project; for others, it is an informal group who work as leaders of the change process; and in still others, the leadership could be a managers' group.

Role of the Facilitator. A Whole Scale™ consultant needs to (1) have a strong customer focus; (2) be able to connect personal wisdom and experience with the client's needs; and (3) partner throughout the process. A Whole-Scale intervention requires a partnership relationship, where each of the parties brings special knowledge and skills to the work.

The consultant's primary role is to guide, monitor and evaluate the flow of the change processes. Consultants will always need to work as a team—two externals and two internals, if available. This combined team collaborates with the leadership team to ensure that the leaders stay connected to what's happening. In the context of a large-scale meeting, the team's job is to give clear direction to participants that enable them to have the conversations they need to have and to do the work they need to do.

Core Team. In the Whole-Scale™ approach to work design, a Core Team acts as the working-level, core linking mechanism from kick-off through implementation. As an additional microcosm, they help shift the organization by bringing divergent thinking (benchmarking information, possibilities, “straw models” and “out-of-the-box thinking” ideas) to larger groups--microcosms of the whole system--for convergence. They learn about designing organizations; educate others; look after the integration of the *Whole-Scale*™ change project with other change projects; track the work of task teams; create processes for reconciling task team work into integrated solutions; ensure that the final design (process and organization) is integrated with the existing organization and its vision, values and principles.

There is no one “design team” who creates the change, makes the choices. Instead, the Core Team explores possibilities and engages the critical mass in deciding the new ways of doing business. Sponsorship Teams and Core Teams act as linking mechanisms.

Role of the Event-Planning Team: An Event Planning Team (EPT) is formed to prepare for any Whole-Scale™ event. Its members are a microcosm of the participants for the meeting being planned. The EPT serves as a diagnostic window on the organization. The EPT's role is to develop a purpose statement and a design for the event itself. Team members provide content expertise, while the consultants provide process expertise. EPT members are participants in the event. They join the leaders and consultants in reading evaluations at the end of each day and decide any changes in the next day's design. By their nature, an EPT exists for the sole purpose of designing a single Whole-Scale session; each event in the Whole-Scale™ process would have its own, unique EPT.

Role of the Logistics Team. An event is somewhat like a stage drama, and the logistics “czar” is the equivalent of a stage manager, heading up a team of stagehands, usually one for every 50 people. They work hard to provide for smooth flow and make sure all materials are available as needed. Because of the demands of their work, they do not participate in the event. They are often people from other departments or offices who want to learn more about the Whole-Scale™ work. They don't need to be a microcosm.

Role of the Participants. People often enter a Whole-Scale™ process with a degree of suspicion and cynicism. They have experienced false starts and have lived through numerous change

efforts that appear to them to be useless. As people develop a common database, trust begins to build. The journey they take together enables them to experience empowerment, take appropriate risks and become more self-sufficient—as individuals, as teams, and as an organization.

As events unfold, people get to know others in the organization with whom they do not typically interact. They contribute to the common database by sharing their hopes, doubts, fears, and ideas freely, listening to others, and finally, making some personal commitments to changed behavior.

Impact on Power and Authority

In the course of the Whole-Scale[™] change processes, power redistributes fairly naturally, mainly because leaders experience how wise people are when they have a common database. Also, people themselves feel wiser and thus ready to confront issues and speak up. Whole-Scale[™] enables people to have their voices heard and gives them a chance to help make the decisions that will impact them. Leaders experience an increase in power because people demonstrate that they want the same things the leaders want, and that they are able to move forward together without anyone having to give orders. The processes enable a critical mass of the organization to steer the whole system in a new direction.

The hierarchical structure of the organization does not go away. It remains, but a single brain and heart now inform it and enable it to function far more efficiently.

Conditions for Success

Why Whole-Scale[™] Works. Practitioners of Whole-Scale[™] believe that the wisdom is in the group. The methodology works because leaders who no longer want to command and control find new ways to align and engage large numbers of people with common strategic focus. It facilitates a process of divergent and convergent thinking that brings about change. It works because:

- people are hungry for information,
- it provides the connections with others which people yearn for,
- the process empowers people at all levels in the hierarchy to be experts on the things they do and to use and share their expertise, and
- “each person’s truth is truth” and is part of the whole picture

When Not to Use Whole-Scale.[™] If a consultant is not able to tolerate conflict, chaos, and ambiguity, and is unable to stay in the situation until the organization has sorted itself out, he or she should not use this method. Trying to get things to be orderly before it’s time will cheat the client. A Whole-Scale[™] practitioner needs to trust the process, especially when it’s chaotic. Meg Wheatley reminds us that organisms need chaos and need to self-organize their solutions from that chaos. This process is, of course, sometimes easier said than done!

Common Mistakes in the Use of Whole-Scale.™ Common mistakes include the following:

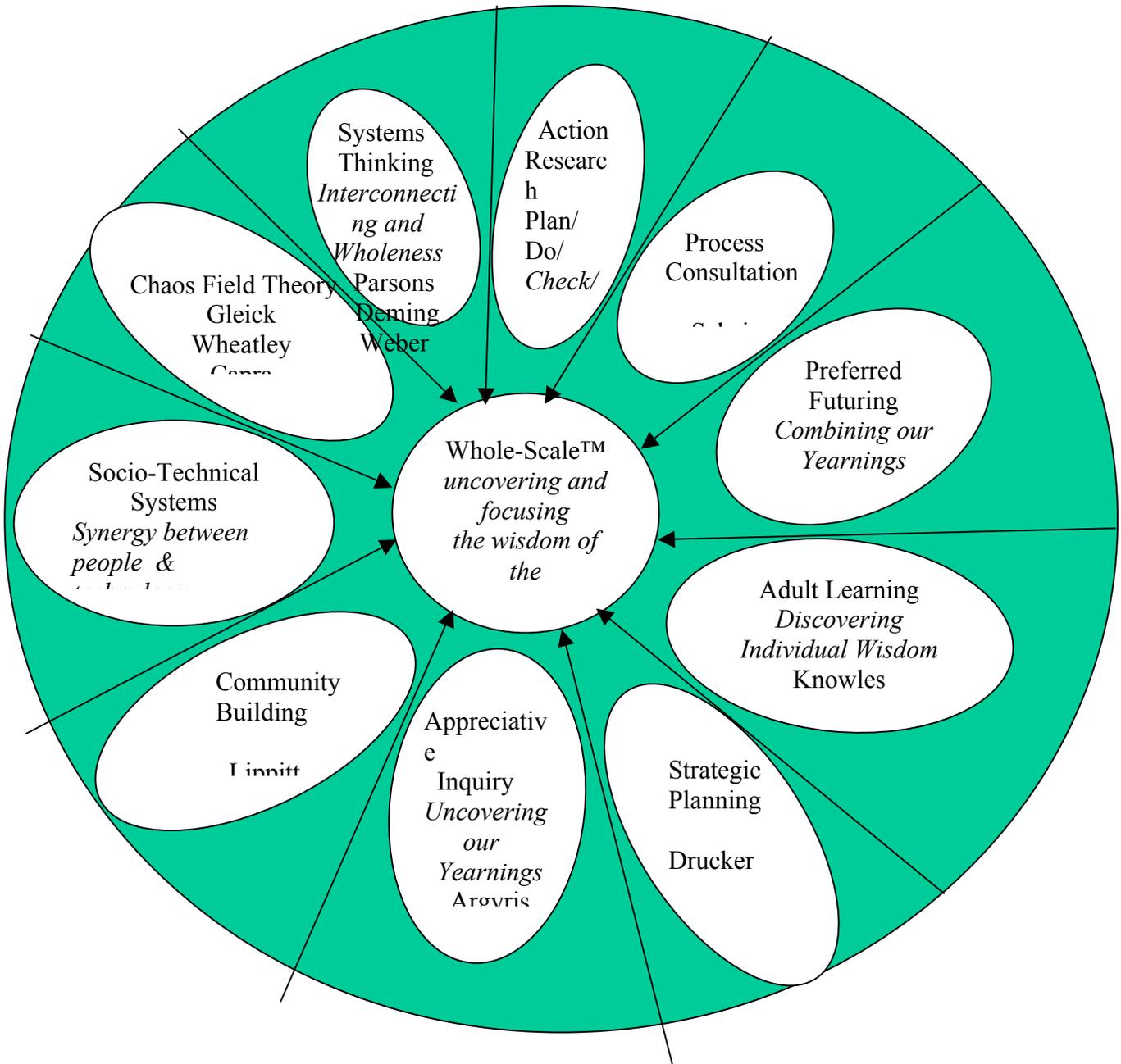
- ◆ Seeing Whole-Scale™ merely as an event, rather than recognizing that each event in the process acts as the motivator in a long-term process
- ◆ Planning or proceeding without the wisdom of a microcosm
- ◆ Allowing the leadership of the organization (either union or management) to unilaterally overrule the decisions of a Core Team or Event Planning Team
- ◆ Not building a team with a leadership group to ensure they are aligned and prepared to be as good as they can be
- ◆ Lifting individual processes from Whole-Scale™ and replicating them as components of good meetings without recognizing the flow of the entire process, thus losing the synergy of what's possible
- ◆ Thinking only of “size” instead of focusing on robust processes for getting to one brain/one heart
- ◆ Working alone

Theoretical Base of Whole-Scale:

The bases for Whole-Scale™ methodology are process consultation, strategy development and implementation, community building and socio-technical systems theory. Many of the values and principles come from the Laboratory Method of Learning developed by Ron Lippitt and others at the National Training Labs and from Eric Trist and his colleagues at the Tavistock Institute who pioneered the Socio-Technical Systems approach to designing organizations.

More recently Meg Wheatley, Myron Kellner-Rogers and others have advanced Field Theory, Chaos Theory, and Systems Thinking; and Rick Maurer has reframed resistance in a way that is also very helpful. The model (Figure 2) illustrates how the various elements of Whole-Scale™ are drawn from a broad spectrum of research and practice.

Roots of the Whole-Scale™ Approach



Sustaining the Results

Four principles help sustain the implementation of changes which begin in a large-scale meetings:

- ◆ Keeping the system whole
- ◆ Engaging as many microcosms as possible
- ◆ Building critical mass for change
- ◆ Keeping the flame of change burning

Keeping the System Whole. In Whole-Scale[®] events, the group remains whole because when they are working in microcosms in the event, they develop a shared picture of the present, the future they yearn to create, and actions to move forward. Once an event is over, the common picture begins to fragment. People return to their “silos,” new information emerges, people leave and new ones arrive. Staying whole in thinking becomes the organization’s challenge over time.

Practical approaches to staying whole are: publishing the results and commitments made, creating cross functional teams to carry out change initiatives, and setting dates to get back together so people can learn from their experiences and decide on next steps. People need an opportunity to share their struggles, celebrate their successes and regularly reconnect to the common database.

Engaging As Many Microcosms as Possible. To sustain momentum you must be able to recreate key elements of the large group meeting, day-to-day. As the organization moves forward they must continue to bring together groups that represent the diversity of functions, disciplines, levels and options that exist in the organization. New microcosms have to be engaged, such as action teams and implementation teams. Microcosms can be convened in the form of other large group meetings, checkpoints, deep dives and reunions. As you engage more people in more microcosms, two things happen: (1) you move faster and (2) sustain and create new change energy.

Building Toward Critical Mass. Throughout any Whole-Scale[®] change process, microcosms of the organization engage in activities in a way that creates a hologram of the system working together as a whole. The organization must continually expand the circle of involvement. When a critical mass of different microcosms experience the paradigm shift experienced by those who participated in the original event, the whole system will continue to change. These constantly expanding sets of microcosms carry with them the energy to support change.

Keeping the Flame of Change Burning. Energy for sustaining change comes from meaning, hope and power. Meaning comes from people knowing and seeing themselves in the purpose, direction and plans for the organization.

Hope comes from knowing that the organization is succeeding in its change efforts, applying its learning as it goes forward with the changes, and achieving demonstrable results. Hope remains alive through measuring the outcomes of change efforts, monitoring and communicating results, and keeping the system whole.

Power comes from having a critical mass of the organization actively engaged in the change efforts. Empowering more people in the organization instills the power in the individuals to sustain the change process. Power comes from exercising the ability to influence. To sustain momentum is to ensure that people feel powerful about the things that matter to them. Power comes from people knowing that they have impact and are able to make change happen.

Some Final Comments

We are often asked to compare Whole-Scale with other methods of change. The truth is that the approaches are more alike than they are different. Each grows out of the same history, philosophies and values. We say, “Learn all of them and then create your own - the one that fits you and/or a particular client. We each invented our particular passion in exactly that way. Our clients taught us and shaped our processes, for which we are very grateful!”

Biographies

Kathleen D. Dannemiller is co-inventor of the real time strategic change approach and a passionate advocate for whole system change for more than 30 years. She is co-author of *Real Time Strategic Change: A Consultant Guide to Large Scale Meetings*, and has written many articles on the Whole-Scale™ approach. Also, Kathie has taught many others how to do it...and continues to have a passion for doing that.

Sylvia L. James has worked as an internal and external consultant in large-scale change for twenty years, pioneering Whole-Scale™ process in aerospace in the early 80’s. The past five years, she has specialized her practice in Whole-Scale™ approaches to work design in service, manufacturing, government and education systems in North America and Great Britain.

Paul D. Tolchinsky, Ph.D. has been consulting to major companies in North America for the past twenty years. He has extensive experience in managing and facilitating large system change efforts; new plant design and start-ups; redesigning existing manufacturing facilities, particularly where unions are involved and has led study missions to Japan for the past ten years. Paul’s particular expertise is in the design of new facilities applying socio-technical principles to organizations. His work is featured in *Large Group Interventions*, Bunker and Alban, 1997 and he is listed in *Who’s Who in Science and Technology* and *Who’s Who in the Midwest*. Dr. Tolchinsky received a BA in Business Administration from Bowling Green State University (1971) and a Ph.D. in Organization Behavior and Design from Purdue University (1978).

Paul, Sylvia and Kathie have been the actual writers of this chapter, but we consider ourselves only “mouthpieces” for the whole Dannemiller Tyson Associates group of partners...Jeff Belanger, Al Blixt, Kathryn Church, Mary Eggers, Henry Johnson, Lorri Johnson, Stas’ Kazmierski, Ron Koller, Roland Loup, and Jim McNeil. We are a virtual company, working together with great commitment to stay “one-brain and one-heart” wherever we are. All of us are part of this document and agree with it.

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Whole Scale Change References

Alban, B. and Bunker, B., *Large Group Interventions: Engaging the Whole System for Rapid Change*, San Francisco, CA, Jossey-Bass Inc., 1997.

Albert, R., Dannemiller, K., Loup, R., and Jacobs, R., *Real Time Strategic Change: A Consultant Guide to Large Scale Meetings*, Ann Arbor, MI, Dannemiller Tyson Associates, 1994.

Daft, Richard and Robert Lengel, *Fusion Leadership*, Berrett-Koehler, 1998.

Dannemiller, K., "Team Building at a Macro Level, or 'Ben Gay' for Arthritic Organizations," In W.B. Reddy & K. Jamison (Eds.), *Team Building: Blueprints for Productivity and Satisfaction*, Alexandria, VA, NTL Institute, 1988.

Kaschub, W., "Employees Redesign HR," *Human Resource Professional*, Horsham, PA, LRP Publications, July/Aug, 1997.

Maurer, R., *Beyond the Wall of Resistance: Unconventional Strategies that Build Support for Change*, Bard Press, 1996.

Videos about Whole-Scale™

Bank of America – Work Redesign--Process & Organization

Chrysler Delta Days – Culture Change, Work Redesign--Implementation

Eicher Motors and Larsen & Tubro in India – Strategic Planning

Ford Milan Plant – Work Redesign--Organizational

Hallmark Cards – Work Redesign

Hewlett Packard Germany – Strategic Planning

PECO Energy – Work Redesign—Process & Organizational

Richmond Savings Credit Union – Strategic Planning

Richmond Savings Credit Union – with annotations by DTA

Roots of Whole-Scale™: Selected Readings

Adult Learning

Knowles, M. ***The Modern Practice of Adult Education***, New York: Cambridge, The Adult Education Company, 1980.

Appreciative Inquiry

Cooperrider, D. and Pratt, C., ***Appreciative Inquiry***, Weatherhead School of Management, Case Western Reserve University, 1997.

Community Building

Lippitt, G and Lippitt, R., ***The Consulting Process in Action***, San Diego, University Associates, 1978.

Socio-Technical Systems

Trist, E., "The Evolution of Socio-Technical Systems," Andy Van de Ven and William Joyce (Eds.), ***Perspectives on Organizational Design and Behaviour***, Wiley Interscience, 1981.

Chaos Field Theory

Gleick, J., ***Chaos: Making a New Science***, New York, Penguin, 1987.

Wheatley, M., ***Leadership and the New Science***, San Francisco, Berrett-Koehler, 1992.

Systems Thinking

Deming, W., ***Out of the Crisis***, Cambridge, MA, Massachusetts Institute of Technology, Ctr for Advanced Engineering Study, 1986.

Action Research

Frohman, M., Sashkin, M., and Kavanagh, M., "Action Research as Applied to Organization Development"; *Organization and Administrative Sciences*, Vol. 7, nos. 1 and 2, pp. 129-42, 1976.

Preferred Futuring

Lippitt, R., "Future Before You Plan"; *The NTL Manager's Handbook*, Arlington, VA, NTL Institute, pp. 374-81, 1983

Influential Sources

Argyris, C. and Schon, D., ***Organizational Learning: A Theory of Action Perspective***, Reading, MA., Addison-Wesley, 1978.

Beckhard, R. and Harris, R., ***Organizational Transitions: Managing Complex Change***, Second edition; Reading, MA, Addison-Wesley, 1987.

Bunker, B. and Alban B., ***Large Group Interventions: Engaging the Whole System for Rapid Change***, San Francisco, Jossey-Bass Inc., 1997.

Bunker, B. and Alban, B., editors, "Special Issue: Large Group Interventions," Journal of Applied Behavioral Science, Vol. 28, No. 4, December, Newbury Park, CA, Sage Press, 1992.

Emery, Merrelyn ed., ***Participative Design for Participative Democracy***, Canberra, Centre for Continuing Education, Australian National University, 1993.
This collection of articles includes an excellent chapter on training search conference manager that addresses the theoretical framework and assumption of the search conference.

Filipeczak, Bob, "Critical Mass: Putting Whole-System Thinking into Practice," Training, Minneapolis, Lakewood Publications, September, 1995.

Knowles, M. ***The Modern Practice of Adult Education***, New York: Cambridge, The Adult Education Company, 1980.

Lindaman, E. and Lippitt, R., ***Choosing the Future You Prefer: A Goal Setting Guide***, Human Resource Development Associates of Ann Arbor, 1979.

Lippitt, G. and Lippitt, R., ***The Consulting Process in Action, second edition***, San Diego, Pfeiffer & Company San Diego, 1986.

Lippitt, R., "Future Before You Plan"; The NTL Manager's Handbook, Arlington, VA, NTL Institute, pp. 374-81, 1983.

Trist, Eric, ***The Evolution of Sociotechnical Systems: A Conceptual Framework and an Action Research Program***, Toronto, Ontario Quality of Working Life Centre, 1981.

Wheatley, Margaret J., ***Leadership and the New Science: Learning About Organization from an Orderly Universe***, San Francisco, Berrett Koehler Publishers, Inc., 1992.