TEAM PROBLEM SOLVING GIVEN THE NEW CORPORATE REALITIES

Dr. Paul A. Johnson, TRIZCON2011 13th Annual International Conference November 28-29, 2011, General Dynamics Land Systems, Detroit, Michigan

Introduction

I want to thank TRIZCON for the opportunity to present this paper today, "now" entitled "Team Problem Solving Given The New Corporate Realities." I am rather new to TRIZ, having been introduced to it by my old friend and colleague, John Borza. I am still learning the techniques, methodologies, processes, and framework of this fascinating, powerful, yet (for me) difficult-to-learn problem-solving approach. But then, I am not an engineer.

I slightly changed my topic for today from "The Psychology of Team Oriented Problem Solving: What Makes A Team Successful;" to "Team Problem Solving Given The New Corporate Realities." As someone steeped-in team theory and practice, I sometimes forget that everybody does not know a lot about team psychology. Nor is the model or process of team building or team problem-solving remotely similar today, as it was when I started consulting in 1973.

During my nearly 40-year career as a clinical and industrial/organizational psychologist, most if not all definitions relating to corporate cultures and processes have markedly changed. The old hierarchical modes of leadership have largely been replaced, in the western world, with emphasis now on team self-leadership and heavily oriented toward networking, cross-functional and self-managed teams.

Aspects of the overall dilemma include the combination of constant, instantaneous world-wide networked communications, coupled with incessant demand for increased and better services, in a trans-national marketplace which operates with constant challenges regarding time zones, diverse cultures and languages, shifting supplier bases, intimately interlinked financial services and information, and often-instant product obsolescence. Most leaders have increasingly more work to do with fewer staff and support, in ever-shortening time-horizons for delivery.

There are myriads of team "types" and multiple categories of team membership including work teams, virtual teams, problem-oriented teams, and so on. Effective teams are increasingly necessary in today's extremely changeable, fast-paced, and endlessly diverse settings and

environments. Executives and managers just cannot keep pace with the incessant demands for nearly instantaneous data review, tactical and strategic plan formulation and decision-making required in today's corporations. However, the time and overall resources that many leaders/organizations feel they can dedicate to building highly functioning teams seems to be constantly eroding in many organizations. So "Team Power" often seems to be more of an oxymoron, than something to acknowledge and rely-on.

I have found that employees and managers, alike, are frequently faced with needing to resolve the contradiction of being required to produce major changes/innovations in products and services, without having the time or the resources to do so. This is one of dozens of opportunities for TRIZ experts to contribute to a team's or organization's embedded creativity and need for rapid, powerful problem resolution. One challenge is getting already overstressed leaders to give TRIZ methodologies a chance. IT WOULD SEEM IMPORTANT FOR TRIZ PRACTITIONERS TO BE VERY FAMILIAR WITH OPTIMIZING TEAM PROCESS.

What is a Team?

So what is a "team," anyway? This slide outlines some aspects of a team including common challenge, small group, complementary skills between team members, committed to a common purpose, with a set of performance goals and working with common ground rules which holds itself accountable for its process and its results. A "work group," by comparison, is a collection of individuals responsible for their own individual contributions to the corporation, with not much interconnectedness nor shared responsibility with the other group members. Group members tend to have more individual and varied relationships with the group leader, than team members with the team leader.

Short Introduction to "Team Process" Today

The "ideal team" evolves, over time, into "one brain." Today most effective leaders are increasingly discovering the need to assume a facilitative, rather than a supervisory mentality and style with their team(s). To create effective teams, members must realize their deep interdependence on one-another to enable collective learning and collective innovation/creativity to happen. Businesses today need to learn and internalize TRIZ methodology but the "customer" is impatient and demanding of immediate gratification. Seems that TRIZ facilitators must become experts on leveraging "team process," along with knowing how to get an audience and

then manage the politics of complex corporations. Keep in mind, however, that team-based organizations are vastly different than the traditional (power-based) organizations that many of us grew-up with.

A Few Team Building Basics

Team building basics today must include methods for building efficient teams quickly. To manage this, a whole panorama of measurements, evaluations, assessments, feedbacks, both group and individual must be utilized and properly applied. Effective team members learn to constructively and (largely) non-defensively "cross-pollinate" diverse, complementary, and supplementary knowledge. The team seeks to create an ever-evolving shared team data-bank for rapid application to constantly new problems. Such teams improve greatly when the members co-develop new change strategies which are usually unique, in some aspect, to their own "team."

Ways in Which Team Efficiency & Cohesion Can Be Sabotaged

Even beyond the above areas of ongoing process intervention, there are other elements which I have routinely encountered that can each sabotage teams. There are the people with inflated egos, who will use the team setting as a dress-rehearsal for their upcoming Broadway performance. There are also team members who simply do not have the requisite skills to be able to contribute meaningfully to the team, whether those skills are instrumental, psychological, or social. Many people bring their sensitivities and insecurities to a team setting, which can be a plus if handled properly by the team leaders, but at worst can become a distraction or worse. Personality conflicts are inevitable in team process and development and, again, can possibly be resolved through a well-functioning team's capabilities for providing meaningful feedback and appropriate limits, but can also prove devastating in a team which is already weak, overly stressed, or threatened. Added to the above "individual member" problems, are "whole team" problems that can individually or collectively sabotage teams. (This slide [p6] shows a model created by Patrick Lencioni (The FIVE dysfunctions of a TEAM, 2002), showing five links in a chain of team dysfunctions, any of which can sabotage the effectiveness of a team, if broken.

New Business World Challenged To Be Inventive, Fast-Paced, and Efficient—Where Does TRIZ Fit-In?

As TRIZ practitioners in the "new world" of business, we are challenged more than ever with retrofitting our methods and capabilities into the fabric of corporate customers who often have

no idea of what TRIZ is or can do. How to get these overstressed leaders to sample our wares? How to make TRIZ into a more user-friendly, more easily understood, and more readily applicable set of tools for people including those who do not have backgrounds steeped in engineering or technical details and methodologies. You must maintain the critical essence of TRIZ, while simplifying and extending its possible use to all of the social, psychological, and human resource applications where innovation and creativity are sorely needed. It seems to me that the TRIZ community must include much more data and applied instruction on how to evaluate, formulate, and effectively strategize methods to deliver its value to often-resistant customers.

Critical Role of the Team Leader

Obviously, the role of the team leader in helping the team to meet any of its problems or challenges cannot be over-stated. A team which can produce clear-minded and constructive suggestions and decisions can become healthier and more self-motivating, as time goes on. Ongoing efforts to improve the team dynamics are among the characteristics of effective team leaders, and effective teams. Not being afraid to get rid of team members who undermine team success, while training and promoting high performers will tend to maximize results, if such actions are properly carried-out. The best functioning teams I have observed realize and continuously factor-in the need to adopt new strategies and methods as they regularly identify what is working and what is not, within the group or company.

Although team leaders are extremely important to the team, there must be systems and core values that will exist and provide needed focus, even with the inevitable loss or replacement of any team leader. Yet leadership is a primary issue in the overall scheme of things, as relates to any attempt at impacting corporate or organizational learning, creativity, profitability, customer focus and retention, people empowerment, creation of shared vision, team culture, and definition of core values to include common objectives and goals.

Case Study: Ineffective TRIZ Team Sponsorship & Leadership

A recent Case Example of a corporation not effectively sponsoring a TRIZ problem solving intervention may be instructive, in the form of "how not to do it." The client, a large company, was getting tremendous pressure from one of their customers, also a large company, to repair or reengineer a critical component that was consistently failing. The client company had seemingly exhausted all of its brain-stormed and management/employee solution ideas, so they called us in

to facilitate a week-long workshop in a cross-functional team of experts from the company. From the beginning, it was apparent that although seeming to have honorable intentions, the majority of team members would stay and participate in the TRIZ team process for only short periods, and then have to run to one or another crises before returning, again for a short time.

When the observation of the above "crisis-hopping," was made to the sponsoring managers, they readily identified many examples of how various goals were being set, then inadvertently sabotaged, due to the same "culture dynamic," which had evolved in the company. Although some progress was made in working toward problem resolution, it was eclipsed by the virtual inability to keep all of the TRIZ team together long enough, to properly work through the process. A post-mortem of this case reveals inconsistent and ambiguous support from top corporate management, the existence of a climate of fear in the corporate culture, and a corporate value system obviously fixated on generating profits and increasing stock price at the expense of even long-term and loyal employees.

True Measures of Great Teams

But what do Great Teams look like? They establish a process for ongoing success, while simultaneously encouraging trust. A true measure of great teams is the process by which they succeed including the establishment and maintaining of overall integrity. Exceptional talents of one or more members may sometimes define team success. But truly great teams are flexible and inventive enough to evolve processes that assist each member to work effectively. They learn to think as one brain.

A major required ingredient for these things to happen is constant constructive feedback in a context of taking effective action, not just talking. Autocratic and dictatorial approaches are now severely outmoded, especially given the evolving global environment of instantaneous, open, "no-holds-barred" communications and the resulting embracing of free speech with all of its advantages and potential pitfalls.

Finally and obviously, effective teams must reinforce fairness and interdependence between team members, while maintaining a task focus. The effective team recognizes and properly utilizes the skills and capabilities of the members.

Team performance can dramatically improve through rapidly testing and evolving methods that

work for each team member regardless of individual differences. These methods allow faster, more coordinated, better disciplined team responses, while also developing greater flexibility and resilience among and between members.

Apparent Team Challenges for TRIZ Facilitators in Corporations

But for TRIZ Facilitators or any team-oriented change agents, there are apparent contradictions which must be addressed. Usually by definition, the TRIZ expert is either an inside (employee) or an outside consultant with regard to the group being facilitated. There is usually some urgency or political pressure being put on the problem-solving team, because the company has not been able, using its own typical problem-solving-techniques, to "crack the code" of whatever presenting obstacles are hindering progress. Since most groups are purposely made up of various subject matter experts coming from different functions and levels in the corporation, primary communication and diversity problems usually threaten team effectiveness.

There is no recipe or readily available solution to resolve the contradiction of "organization wants TRIZ team to resolve major problem; TRIZ team has no history of working effectively together; TRIZ team must work effectively to solve problem." Having the strong sponsorship of a key and well-respected executive in the corporation, who can work collaboratively with the TRIZ consultant to populate the TRIZ team with proven team players having neutral or good histories with one another, is certainly one step toward resolving this contradiction.

The obstacles and disappointments that will inevitably arise must not deter the effective TRIZ team from maintaining its essential values and integrity. There must be short, but periodic and open discussions about the team's mission, acceptable practices, and its core values. The team's objectives, purpose, and code of conduct should be clear to all members, and be periodically reinforced.

The effective TRIZ team works constantly to be a basis from which members are selfempowered to get work done. Members want to make unique contributions to realizing goals in a context of team and organizational values that are consistent with their own. Constant accountability from the members and the overall team helps establish the discipline required for the team to succeed.

The engaged and effective TRIZ team is built from a firm foundation wherein principles are mutually understood and accepted by all member, just as participative leadership is rock solid. Effective team leaders in any team expect the best performance and results from the team and its

members and, like Pygmalion, they believe that average people expected to do great things, probably will. They show they care for each member and the team as a whole, by any number of signs, gestures, comments, willingness to share in disagreeable assignments, and so on.

Some team building experts recommend having new members spend a probationary period of at least three months working in the team, to demonstrate concretely what and how they will behave going forward. Effective teams focus on successes rather than failures, but still use failure as powerfully instructive for the future. The "Ideal" may be to be empowered to select, instruct, groom and coach a TRIZ Team for months, provided with constant opportunities for engaging in meaningful problem-solving.

Potential Contribution of TRIZ to Today's Corporations

The potential for TRIZ methods to add significantly to a company's inventive problem solving capabilities is huge. This is even more the case in light of the rapidly-shrinking world, a firmly established global economy, instantaneous and boundless communications. TRIZ is a powerful problem-solving and problem analysis tool, but seems to be harder to sell than many less powerful or productive problem resolution tools already used in industry. Perhaps TRIZ experts over-promise amazing results, or at least do not give adequate and appropriate praise to alternative methods (e.g. Lean Manufacturing, Creative Problem Solving, Six Sigma, etc.) that companies have already invested-in. It also appears that some of the resistance to using TRIZ may be based on indoctrinated characteristics of engineers, themselves. One example that comes to mind is the high value engineers put on compromise, which seems contradictory to TRIZ tenets including Ideality.

It would seem that more up-front investment in "prospecting" potential new corporate clients may be required in the case of companies who have had no past, positive experiences utilizing or learning TRIZ. This might take the form of offering free consulting time to sit with leaders **in an** organization who are struggling with seemingly irresolvable problems, listening carefully for the contradictions, and then demonstrating how TRIZ can help discover new ways of framing or more accurately defining those problems. It would be extremely helpful to be able to capture, with some accuracy, the money that has been already wasted, on solving the wrong or poorly-framed problems.

Utilizing TRIZ in a Team Setting

Utilizing TRIZ in a team setting should be understood by the organization as applying diverse, but commonly-shared and respected tools for effective, often-rapid problem solving. An

effective TRIZ team does use critical but constructive feedback at all times, because the goal is solving the presenting problem, not enhancing individual egos nor placating authority. TRIZ is not easy, nor a quick fix, but is very compatible with other, perhaps better-known methods such as 6-Sigma, LEAN manufacturing, Value Engineering, etc. While TRIZ practitioners are usually focused on applying TRIZ tools, they must also be skillful at observing, evaluating and proactively addressing critical organizational and group dynamics. They should also be able to put forward and require basic support and resource commitments which top management is expected to accept, in order for the TRIZ process to have a good chance for success.

Key Elements of TRIZ Team Process

Key elements of a TRIZ team process should include realistic and shared, ongoing appraisals of the presenting challenges and realities for the team. Members and team should be self-empowering, with mature and exceptional leadership which plays more of a mentoring and team facilitative role, with carefully chosen team members who may have the potential for significant contributions, even if without current stellar "track records." Team membership should be earned and members should promulgate and then enforce the performance norms, expectations, and requirements for continued membership in the team. There must be a constant, proactive effort to get base-line feedback from the team and team members, followed by ongoing communications within and between team members, for continuous improvement and refinement of understanding and hopeful support. Always clear agendas, group supported roles and responsibilities, enforced group discipline, generous intangible rewards, honest and open communications, pre-planning for possible crises, achieving concrete and substantive goals, and maintenance of upper management support must be among the top priorities of the totally effective TRIZ team.

Summary

Utilizing TRIZ in a team setting with seasoned TRIZ experts is obviously a powerful experience. This seems to demonstrate the potential of an effective team being able to accomplish much more than by having one "hero," who the team depends upon for success. The diverse tools and commonly-shared TRIZ principles and paradigms seem to bind the members together with less rivalry, jealousy, and fear than seems typical of a new corporate team populated by people who are strangers to one another. The common goal of combining and improving each other's solutions are among the "ties-that-bind." Sharing a common toolkit and enjoying the collaboration toward an objective goal, are both representative of what any ideal work team can experience.

Many TRIZ facilitators do not have the luxury of being provided a ready-made team of TRIZ experts to work on incredibly difficult organizational problems. TRIZ facilitators will often inherit teams or at least have only nominal influence on the selection of critical team leaders and members. It would seem that these TRIZ facilitators must better understand and utilize knowledge about organizational consulting, working with top management, negotiating needed resources, and understanding while effectively managing TRIZ team processes and dynamics. All of this in the wake of incredibly complex and relatively new corporate realities. This paper is an attempt at raising some critical issues and, hopefully, eliciting some constructive feedback from expert TRIZ practitioners.