



***How to Improve Teamwork &
Accelerate Six Sigma
Projects***

Purpose

The purpose of this paper is to ensure more successful Six Sigma project outcomes through the use of group mediating technology to help manage team relationships, issues, and team productivity.

Background

Six Sigma is experiencing very strong growth among small and medium to large pharmaceutical, finance, information technology, telecommunications and manufacturing organisations in most developed countries. For example, Seagate Technologies employs 600 Black Belt facilitators; GE employs 5,000 and Hewlett Packard 200. "Since it began using Six Sigma five years ago, Seagate calculates that it has saved more than US\$750 million through a total of 3,407 Six Sigma projects." (NYSE, March 2003).

Companies are using Six Sigma to improve such non-manufacturing processes as accounts receivable, sales, and R&D. Dow Chemical, for example, estimates that the application of Six Sigma to environmental health and safety services has saved the company \$130 million in the past two years; other initiatives are under way for corporate R&D, finance, information systems, legal, marketing, public affairs, and human resources processes. "Not surprisingly, financial institutions, consumer products companies and health care firms are all jumping on the Six Sigma bandwagon." (Biolos, 2003).

Success Factors & Challenges

Six Sigma is a proven business improvement methodology implemented by workplace teams. Since Motorola created the methodology in 1987, it has been applied to manufacturing and service environments to reduce variability and increase efficiency in business processes. The methodology is built upon a well-defined and robust infrastructure, which directly involves highly trained personnel from several management levels (the so-called Black Belts and Green Belts) targeting quality and process improvement projects to drive a company's continuous improvement and competitive advantage efforts.

The methodology comprises both a social and a technical system. To be effective, the social and technical systems must integrate and assist one another, so effective teamwork is a fundamental and critical component. The methodology includes well-defined and tested processes for the technical component, but does not adequately deal with, either in its training programs or during project implementation, the important social relationships system.

Six Sigma teams usually receive extensive training about the concepts and how to apply various statistical tools to solve problems in the business processes. During the training, they also learn how to use computer-aided tools, which are currently available for technical data collection and analysis.

There is a general consensus that the emphasis in Six Sigma projects is on process and problem solving rather than people or project management. It is widely accepted that Six Sigma teams face a number of hurdles during the completion of their tasks, ranging from group dynamics to decision making. A team leader is not only required to be an expert in problem-solving but also has to understand how to manage teams and projects.

Many Six Sigma teams get frustrated due to a lack of skills in communication and collaboration, team facilitation and conflict resolution. The most common reasons for failure in Six Sigma projects is the absence of leadership and group management tools, techniques and processes in the methodology and training, which are essential elements of effective group work (Eckes, 2002). Additional failure-related issues include lack of empowerment, reward and cooperation among group members (McAdam, Evans, 2004); top management commitment and well-designed education and training programs encompassing appropriate group work tools and techniques, (Basu, 2004).

Applying Group-mediating Technology to Teamwork

Group Mediating Technology (GMT) has been in use since the early 1990's. Used to support collaborative knowledge work, there have been numerous research studies into its effects on teamwork. The research shows positive outcomes on behavioural, cognitive and task related activities when individuals operate in a group.

Describe a typical technology – “beyond web conferencing”.

For example, group performance is positively affected by:

- Parallel input of ideas in text e.g. all participants “talk” at once through keyboards
- Opportunities for equal input
- A full-unbiased record of a group’s activities that are recorded by the system
- Optional anonymity so that some of the participation inhibitors are minimized
- Mechanisms that discourage disruptive behavior by individual group members
- Mechanisms that encourage critical thinking and problem solving

In relation to group productivity, 30 different projects by Grohowski and McGoff (1990), on GMT reported that:

- The person hour reduction in project time averaged 55%
- Overall project time decreased by an average of 92%
- Compared to traditional group activities for accomplishing similar tasks, groups report that using GMT takes significantly less time and in general the process is much more satisfying. (Liou, Post 1992)
- Productivity improvements ranged from 25-50% for four person groups and up to 200% for 12 person groups. Sloan Management Review Study conducted by Gallupe and Cooper (1992)
- More ideas were generated and large groups could be effective
- There was a greater likelihood of producing more high quality ideas than traditional brainstorming with flipcharts
- Parallel entry of ideas and a record of ideas generated were also positive features

In addition, behavioural improvements include:

- More goal-directed group behaviour
- Leadership and coordination were handled better and participants have more healthy interpersonal relations. (Bostrom, Anson, 1992)

About Grouputer Six Sigma Group Mediating Tools

Grouputer is an online group mediating technology that integrates the problem solving, task and team management requirements essential for successful Six Sigma initiatives.

Tools available within the Grouputer software include:

Tool Name	Function
Six Sigma Process	<p>Collaborative meeting templates for Six Sigma team meeting. Team members work interactively in a shared space to plan, solve problems and make decisions.</p> <p>Templates accelerate training and provide a consistent platform for experienced and new Black and Green belt facilitators to deliver the Six Sigma methodology.</p>
Discuss	<p>Allows structured brainstorming, voting, categorizing, action planning and editing for named and anonymous meetings and training.</p>
Presentations	<p>A tool for Microsoft PowerPoint presentations with animations, controlled by the facilitator in synchronous sessions and by participants in asynchronous sessions.</p>
Documents	<p>Enables viewing of documents including Microsoft Word, Excel, Adobe Acrobat and various graphic formats by all participants.</p>
Survey	<p>A tool for conducting stand-alone qualitative and quantitative surveys including Yes/No/Abstain voting, Multiple Choice voting, Ranking/prioritizing, Scales and Open-ended questions.</p>
Application Sharing	<p>Enables any software program running on the Facilitator's PC to be shared with participants for group document creation and editing. Includes ability to pass control to other participants and to share a participant's software programs.</p>
Desktop Sharing	<p>Similar to Application Sharing, except that it enables all software programs on the Facilitator's or Participant's PC to be shared.</p>
Split	<p>Enables any two Grouputer tools (except Application and Desktop Sharing) to be displayed and used concurrently.</p>
Web	<p>Enables the sharing of web sites, web pages and hyperlinks.</p>
Assign	<p>Enables the Facilitator to pass control of the session to other participants, and to revoke control.</p>

Wizard-driven Compass

Wizard tool for meeting preparation, scheduling, starting, admin, automatic e-mails, one click logins

Enterprise Applications

Collaborate with distant colleagues. Regular 'information sharing' sessions with colleagues about emerging trends, global customer behavior and marketing and sales successes leverage knowledge for competitive advantage.

Deliver customer presentations anytime, anywhere. Grouputer helps enterprises build strong, cost effective customer relationships. Meet virtually for high quality presentations about new products, special promotions, corporate news and product knowledge.

Expand knowledge of the market. Gain valuable feedback from key customers, suppliers and the stakeholders through regular online focus groups and feedback sessions.

Manage the knowledge in your enterprise wisely. Use Grouputer as a key strategy in your Knowledge Management program. Create strategic plans and run process improvement, project management, R&D and cross- functional teams with Grouputer to dramatically improve productivity enterprise-wide and cut cycle times on RFTs, alliance development, customer strategy development, process improvement and project management.

Survey employees and promote retention. Regular employee surveys uncover corporate strengths and weaknesses and let employees know their opinions are valued.

Train employees from home or office. Using just a PC and a dial-up line, training can be delivered from anywhere at a time convenient to the employee.

Conclusion

Grouputer was designed to overcome many of the problems people experience working in teams. Since its inception Grouputer team programs have been used in thousands of team activities. As teamwork is a primary means of transacting business in today's enterprises, it is imperative that teams deliver superior results.

If you would like more information or to arrange a demonstration, please email:

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