



TEAM BUILDING: IMPROVING PROJECT PERFORMANCE

The purpose of this publication is to make available to industry the results of research conducted by the Construction Industry Institute (CII). The publication does not necessarily represent the views of CII member companies, but is offered as a contribution to the industry.

CII was founded in 1983 to improve the cost effectiveness of the nation's largest industry. The members, who represent a broad cross-section of owners and contractors, believe that many of the problems that limit cost effectiveness are common ones, and that real improvements can be best accomplished in a cooperative environment with the benefits being shared by the construction industry at large.

CII uses the acronym TOPICS to describe the research effort. TOPICS signifies the six research thrust areas: Technology, Organization, People, Information, Controls, and Sigma (meaning others). The task forces for each area are listed below.

Technology

- Advanced Technological Systems
- Computer Integrated Design & Construction
- Design for Safety
- Environmental Remediation Technology
- Technology Strategy
- Technology Survey

Organization

- Partnering II
- Pre-Project Planning
- Project Change Management
- Project Organization II
- Project Team Building

People

- ADA Impacts
- Continuing Supervisory Education
- Drug-Free Workplace
- Zero Accidents

Information

- 3D CAD Link
- International Construction
- International Standards
- Owner Engineering Organization
- Project Team Communications

Controls

- Change Order Impacts
- Contracting, Phase II
- Dispute Prevention and Resolution
- Predictive Tools
- Quality Performance Measurement
- Schedule Reduction
- Total Quality Management

Sigma

- Barriers to Implementation
- Insurance
- Piping Function
- Retrofit Projects
- U.S. Navy Demonstration Project
- Utility Pilot Projects
- Workers Compensation

The Construction Industry Institute
The University of Texas at Austin
3208 Red River
Suite 300
Austin, Texas 78705-2650
(512) 471-4319
FAX (512) 499-8101

Team Building: Improving Project Performance

**Prepared by
The Construction Industry Institute
Project Team Building Task Force**

**Publication 37-1
July 1993**

© 1993 Construction Industry Institute™.

The University of Texas at Austin.

CII members may reproduce and distribute this work internally in any medium at no cost to internal recipients. CII members are permitted to revise and adapt this work for the internal use provided an informational copy is furnished to CII.

Available to non-members by purchase; however, no copies may be made or distributed and no modifications made without prior written permission from CII. Contact CII at <http://construction-institute.org/catalog.htm> to purchase copies. Volume discounts may be available.

All CII members, current students, and faculty at a college or university are eligible to purchase CII products at member prices. Faculty and students at a college or university may reproduce and distribute this work without modification for educational use.

Printed in the United States of America.

Contents

<i>Chapter</i>	<i>Page</i>
Executive Summary	v
1. Introduction	1
A Key Point	1
Project Team Building Task Force	1
Partnering	2
The Team Building Process	3
Methodology	4
2. Findings	5
Summary	5
Extent of Adversarial Relationship	6
Causes of Adversarial Relationships	6
Cost Impact of Adversarial Relationships	7
Commercial Relationship and Team Building	7
Decision to Use the Team Building Process	8
The Team Building Process	8
Costs and Benefits of Using the Team Building Process	9
Characteristics of Effective Project Teams	12
Reactions to the Use of the Team Building Process	14
3. Conclusions	16
4. Recommendations	19
Appendix A: Case Studies	22
Appendix B: Suggested Sources for Information	35

Executive Summary

An effective team building process can bring significant, not simply marginal, improvements in project execution and results. Use of team building represents a “step change” in the way projects are managed and in the ultimate project performance. The purpose of this publication is to demonstrate how these statements are supported by research and case studies.

It is not uncommon during the design/construction process for an adversarial relationship to develop among the parties involved, usually the project owner, designer and contractor. Since this type of relationship is seldom constructive and frequently the cause of problems, CII formed the Project Team Building Task Force to examine how the adversarial relationship might be minimized.

Through a series of meetings, literature review, three mail surveys and personal interviews, the task force defined the research problem and conducted its research. This publication contains the major findings, conclusions and recommendations of the research.

The Team Building Process. This publication does not address “teams,” per se; it addresses the team building *process*. What is the team building process? It is a process that brings together a diverse group of individuals and seeks to resolve differences, remove roadblocks and proactively build and develop the group into an aligned, focused and motivated work team that strives for a common mission and for shared goals, objectives and priorities.

The reader will not find a “how-to-do-it” manual on team building here, but rather will learn about the results of its use on a wide variety of construction projects. While no effort has been made to prescribe the methods by which successful team building should be done, common elements were found, which include:

1. Use of a consultant who does not have a direct stake in the outcome of the project.
2. At least one “retreat” type meeting of the group in which the shared goals are spelled out and essential decision-making and dispute resolution procedures are worked out.
3. Regular job site meetings of the team (at which the consultant need not be present).
4. Follow-up meetings to reinforce concepts and to integrate new members.

On most projects studied during the research, individuals that participated in the team building process were from three different organizations—the owner, designer and contractor. On the remaining projects, team members were from only two of these organizations. Occasionally, team members included other major stakeholders such as subcontractors and construction managers.

Major research findings:

- Adversarial relationships are common but not universal, have several major causes, and can have a detrimental impact on project costs and results, but can be reduced or eliminated by use of the team building process.
- Project team building was used successfully regardless of the type of commercial relationship (“lump sum” or “cost reimbursable” contract) among the parties.
- The decision to use the team building process was made primarily because the process was viewed as a proactive way to manage a project in a “win win” environment.
- The team building process forms a group into an aligned, focused and motivated work team that strives for a common project mission.
- The costs associated with using team building are minuscule when compared to the benefits received.
- All interviewees on all of the projects studied in this research said they would use team building again!

Major conclusions:

- Successful use of the team building process will bring to the design/construction process significant and cost effective short-term and long-term benefits.
- The major motivation for using the team building process on the projects studied was to improve project results.
- Confusion can be reduced by distinguishing between the team building process and “partnering.” They are different forms of collaboration among owner, designer, and contractor even though the two terms often are used interchangeably.

- The successful use of project team building is independent of the specific type of commercial relationship that is used by the parties to the project.
- Owners, designers and contractors provided essentially similar responses to questions asked in this research.
- The costs of conducting the team building process are best thought of as a small investment that yields a high rate of return.
- Adversarial relationships among a project owner, designer and/or contractor are common but not inevitable.
- Previous experience with the team building process is not a precondition for having effective teams.
- Implementing the team building process is facilitated by the use of a consultant, either from inside or outside one of the involved organizations.
- There is no “one best way” to facilitate the team building process. Different facilitating styles can lead to effective project teams.
- The team building process is not a management panacea, but is one technique that, if effectively applied, can contribute important benefits.

Major recommendations:

- Use the team building process.
- Use a consultant to facilitate the process.
- Begin the process early in the life of the project.
- Seek broad participation in the process.
- Make the process an integral part of project management.

Case Studies. Case studies of selected projects investigated by the task force are included in this publication as Appendix A. The case studies provide descriptive information on the actual use and results of the team building process.

Selected Sources for Information. Appendix B contains current references that may provide useful information on the philosophy and technology of the team building process.

Introduction

Using an effective team building process in managing projects can bring significant, not simply marginal, improvements in project results. Use of team building represents a “step change” difference in the way projects are managed. The purpose of this publication is to demonstrate how these statements are supported by research.

A Key Point

First, a key point needs to be made. This publication is not simply another tribute to the use of “teams” in management. Teams and the “team approach” are not new to project management, and the “integrated team,” consisting of individuals who represent the owner, designer and/or contractor, is widely used. Owners, designers and contractors have used “project teams” for years, and many project managers would assert they do “team building.”

The key point here is the task force focused on project teams that evolved out of a team building *process*. It is the effective use of the team building process, and not simply the use of teams, that facilitates improvement in project results. Without an effective team building process, the potential benefits of teams may not be realized. Thus, this publication’s contribution to the construction industry and to more effective project results lies in what it says about the team building *process*. The basic nature and critical role of this process in improving project results will be highlighted.

Project Team Building Task Force

There is a widely held belief among owners, designers and contractors that the design/construction process often is characterized by mistrust, conflict and disputes. These characteristics can create adversarial relationships that lead to higher project costs, schedule delays, quality and safety problems and unsatisfactory future working relationships. To study the possibility of minimizing adversarial relationships among owners, designers and contractors, CII formed the Project Team Building Task Force.

The major purposes of the research conducted by the task force were to focus on the team building process as a means for minimizing adversarial relationships, to examine team building/behavioral

relationships and to make recommendations for using team building to enhance project results. After reviewing existing literature and industry practice, it became clear a distinction needed to be made between “partnering” and the team building process.

Partnering

Partnering and team building are similar but not identical forms of collaboration among owners, designers and contractors. Partnering has received substantial, positive media coverage and is an accepted practice among many business firms. Partnering was the research focus of the CII Partnering Task Force.

Considerable overlap can be found in the content and processes of team building and partnering. Both are forms of collaboration, and, in practice, partnering and team building are terms often used synonymously. For example, the U. S. Army Corps of Engineers uses the term “partnering” in a way similar to the way the term “team building process” is used here. A few of the projects the task force studied were actually examples of partnering. In one project, a team building process was part of a larger partnering relationship, with blurred distinctions between the two.

Partnering may be thought of as a broader concept than team building. It is not focused on a particular project, although a single project (particularly in the public sector) can be a way of initiating a partnering relationship. Team building on a single project could be one component of partnering. CII Special Publication 17-1, *In Search of Partnering Excellence*, suggests the following definition of partnering:

Partnering is a long-term commitment between two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant’s resources. This requires changing traditional relationships to a shared culture without regard to organizational boundaries. The relationship is based on trust, dedication to common goals and an understanding of each other’s individual expectations and values. Expected benefits include improved efficiency and cost effectiveness, increased opportunity for innovation and the continuous improvement of quality products and services.

In elaborating on the above definition, CII Special Publication 17-1 identifies several key elements of partnering that characterize the relationship between parties. The key elements are: *long-term*

commitment [emphasis added], trust, shared vision, equity, investment, synergism, shared risk, rewards, systemic and competitive edge. The probability of achieving these key elements is enhanced if the initiating party implements a systematic process for selecting a partner. Several guidelines for this process are suggested in CII Special Publication 17-1. One of the outcomes of implementing the partnering process typically is a *formal, contractual partnering agreement* [emphasis added].

The Team Building Process

In contrast to partnering, the team building process, as the term is used here, is a short-term process implemented on a specific project. A formal, contractual team building agreement is not typical. The objective of the process is simply to build and develop effective inter-organizational teams. These teams may include representatives of the project owner, designer, contractor and possibly other key stakeholders in the project outcome. Further, membership on the project team often changes and grows as the project develops and different knowledge and skills become relevant to the team building process. However, in contrast to partnering, the project team typically ceases to exist and the team building process stops once the project is completed. As the terms are used in this publication, the team building process and an effective project team are defined as follows:

*The **team building process** is a project focused process that brings together key stakeholders in the project outcome, usually representatives of the project owner, designer and/or contractor. It seeks to resolve differences, remove roadblocks, and build and develop trust and commitment, a common mission statement, shared goals, interdependence, accountability among team members and problem solving skills.*

*An **effective project team** is a group who shares a common mission or a reason for working together, is interdependent in effectively achieving shared goals, shares a commitment to working together toward identifying and solving problems (rather than finger pointing and fault finding) and is accountable as a functioning unit within a larger inter-organizational context.*

Although the team building process has a short-term focus, it can have long-term payoffs for its participants. The skills and attitudes learned remain with participants long after project completion, and they become part of the human capital of the involved organizations.

Methodology

To define the research problem and collect data, a combination of task force meetings, literature review, three mail surveys and a series of personal interviews were used. Task force members conducted the personal interviews, over a six month period, with contact persons on 41 projects that had utilized a team building process to some degree. The 41 projects studied had an approximate total dollar value of \$5.5 billion and represented a mixture of private- and public-sector projects and cost plus and fixed price contracts. On 25 of the projects studied, the owner, designer and contractor were three different firms; on 16 projects, only two were different firms.

Findings

Summary

A summary of the major research findings is given below, followed in the next sections with more detailed explanation.

- **Extent of Adversarial Relationship.** Working relations among a project owner, designer and/or contractor frequently are characterized by mistrust, poor communication and cooperation, and an adversarial nature. However, while such relationships are frequent, they are not the norm.
- **Causes of Adversarial Relationships.** In the opinion of experienced industry practitioners, the most important causes are: poorly defined scope of project, excessive change orders, changes not properly managed, lack of communication of objectives, unrealistic project schedule and unrealistic project budget.
- **Cost Impact of Adversarial Relationships.** The two causes cited as having the most severe impact on project costs and results are poorly defined scope and excessive change orders.
- **Commercial Relationship and Team Building.** Project team building was used successfully regardless of the type of commercial relationship ("lump sum" or "cost reimbursable" contract) among the parties.
- **Decision to Use the Team Building Process.** Previous experience with or exposure to team building and the presence of a team building "champion" facilitated the decision to use the team building process. The primary motivation for the decision was to initiate a proactive way to manage in a "win win" environment.
- **The Team Building Process.** The core contribution of the team building process is that it facilitates building and developing a "group" into an aligned, focused and motivated work "team" striving for a common project mission and for shared goals, objectives and priorities.