

Team Building in Engineering Organizations: *no silver bullets.*

Years ago a young psychology doctoral student was being given an extensive tour of a facility for the criminally insane. He was astonished to note that there were only three guards on a ward that housed over a hundred dangerous inmates. He asked, "Aren't you afraid these people will overpower the guards and escape?" He received the reply, "Not to worry, lunatics never cooperate."

I have reflected on this anecdote many times when I have been called in to an organization with a request "to help with some team building". To my great relief I have met very few bona-fide lunatics in my 20+ year consulting career. However, I have observed many organizations, staffed with and led by intelligent, motivated, and rational professionals that seem studiously determined to avoid the benefits of effective team behavior. Though I am confident that engineers are not biologically programmed with an "anti-team building" gene, I have observed a few traits that engineering firms and technology companies (led by engineers) seem to share that do not reinforce effective team building.

- **By the way, it is a matter of life and death.** In Ken Burns' film "The Brooklyn Bridge" the following question was asked, "How could the subject of so much argument, acrimony and disagreement become an object of such beauty?" Engineers take their work seriously. A graceful bridge knitting together two communities, a spire rising effortlessly into the heavens, a sturdy dam sheltering families and businesses in its lee, creating electricity and recreation for thousands - these engineering achievements are the hallmarks of our civilization. They give a sense of concrete accomplishment and a feeling of contribution to the common good to all involved in their creation and contained therein are the emotional and psychological rewards of an engineering job well done - a sense sadly lacking today in many occupations. Or they can be the object of public ridicule because of appearance, or anger over cost overruns or shrines of sorrow because of lost lives due to incompetence. When such issues are at stake it is relatively easy for anyone to fight mercilessly for one's point of view, to undermine and defeat opposing concepts and to brook no disagreement. All of these traits are useful in getting your project completed; all are counterproductive to effective team building.

- **The Popeye principle.** We all know the cartoon sailor's motto: "I yam, what I yam, what I yam." And it fits many an engineer. Many engineers have told me that academic achievement in high school math and science led to increasing specialization in these and related areas in college, graduate school and, ultimately, continuing professional education. The intensity of this training regimen leaves little time or energy for the study of such topics as interpersonal communication, group dynamics, or organizational development. The designers of engineering curricula subtly collude with many of their students' natural tendencies to avoid these and other "touchy-feely" topics. This avoidance carries on into professional life and it is a rare engineer who, in preparation for a management position, spends as much energy learning people management as project management.

In an effort to get him to open up with me I once asked an engineering manager to describe himself to me in terms of his relative strengths and weaknesses. His entire response, reminiscent of "Silent" Calvin Coolidge, was "low verbal, high math". Every engineer manager to whom I've told this story chuckles but if team building is our goal then this is a stereotype whose day has come and gone.

- **"Culture? What culture?"** In some firms they (quietly) call it, "sell it, do it, bill it". In others it is, "you must kill to eat and eat what you kill". With more subtlety other firms call it "tighter adherence to project budget" or "increased focus on individual and office billable ratios". But however the organizational culture is characterized by its members there is no escaping the sea change now underway in many engineering organizations.

What used to be described as a collegial, friendly and predictable environment is now frequently described as mercurial, market (and marketing) driven and increasingly competitive. Where once longevity meant security it now may mean risk. Where unquestioned ethical standards and contributions to the field have heretofore been the measure of professionalism we are now seeing more focus on flashy four-color brochures, high-tech trade show booths and low-ball bidding. Senior staff mourn the old culture's passing, newer staff members look for something worth committing to.

I have observed a definite sense of loss - almost of grief - at the passing of the way "we used to do business". The attitude of many engineers now coming of age as managers is reminiscent of J. B. Priestly's comment, "When I was young there was no respect for the young, and now that I am old there is no respect for the old. I missed out coming and going."

As many organizations begin to face the realities briefly outlined above they begin to engage in "team building" activities to build morale, encourage communication and enhance productivity. The Hawthorne Principle tells us that employees recognize and appreciate any effort taken on their behalf to improve their working lives. These effects, though desirable, wear off fairly quickly. The holiday parties, the birthday cakes, the white-water rafting, the five and ten year pins, the company hats are all worth doing and are appreciated but communicate a concern that is about as short term as their effects. A more sustained and sustainable program of organizational team building can be realized with the following seven step approach to the management of an engineering organization's human resources.

1. Assessment and hiring. The tools to identify a potential new staffer's ability to communicate with, work with, share ideas and credit with colleagues are now at our disposal. Traditional staff selection stumbling blocks (like the halo effect and the clonal effect) can be overcome with a professional, psychological assessment process. Improving organizational interviewing processes and in securing and evaluating job candidate reference data are also critical. One of the certain ways to enhance team building is to hire team players.

2. Orientation and integration. One of the most stressful days anyone will spend with a firm is the first day. Most firms' orientation process consists of introducing you to

a few key people, signing you up for your insurance and pointing out the coffee pot and telling you that you're late for your first meeting . Effectively orienting and integrating new employees are key elements of effective team building. If we are to effectively integrate new team members we must outline an orientation program that extends over a few weeks and gives him or her a sense of who the key players are and what they are like to work with, how to relate to other offices, what the vision, mission, and values of the firm mean, how to get involved in what projects, how to get administrative tasks accomplished such as finding a PC or getting business cards. I recently spoke to an engineer who had been with an organization three months and still felt awkward because he didn't know who to talk to about getting his paycheck deductions corrected. Often assigning an orientation "buddy" - a fellow professional - to monitor and assist in this process is helpful.

If a relocation has been part of this employee's transition to your firm it will help to remember to ask about (and assist with, if possible) how the move is going, new housing arrangements, spouse or partner's job hunt, children's school or daycare arrangements or if there have been elders affected by the move. The most dedicated new team member cannot focus on a new and challenging assignment if he or she is facing serious unresolved complications on the homefront.

3. Training. The engineering organizations that I have worked with do a fine job of technical and project training either with in-house or external resources. Unfortunately, management training seems to often fall farther down the priority list. Office and team managers are sort of expected to "pick up" what skills they need. Though senior management does sometimes have the opportunity to participate in executive development programs (usually off-site at business schools) the front-line managers have little opportunity to sit, discuss and think through current management issues, approaches and challenges with their peers. If a team approach is desired the entire coaching staff must have the opportunity to develop their skills.

4. Performance Management. Think about a football quarterback who was told to keep throwing passes for an entire year, with little to no feedback about his completion ratio or how or even if to improve and that at the end of the year the coach would tell him how he had done. Sound silly? Of course, but that is how many firms manage the performance of their key personnel. Regular performance evaluations are important and getting feedback and input from multiple sources is a significant new trend in the performance review process. But even the best evaluation cannot take the place of the occasional coaching session and (what should be the nearly continuous process of) on-going performance feedback.. Regular face to face or one to one sessions that help employees become clear on the expectations on them and how they are doing in relation to them are essential. If you want to build a team you must interact with your players regularly, get to know your players intimately and recognize that even the most winning player needs occasional coaching.

5. Career Pathing. Your key team members want to grow, succeed, get promoted, tackle the biggest challenges, get the better assignments and make more money. What are the formal and informal rules for making this happen in your firm? Is there one ladder to the top or are there multiple paths to success? The era of the parental employer who could guarantee career-long employment in return for employee loyalty is (perhaps, sadly) gone. Your most motivated team players understand this and if your firm does not clarify how they can progress, and help them to do it, they will be all that more susceptible to the next head-hunter's call.

And career pathing is not just for your team's stars. Even the lowliest employee needs to know that, if he or she has what it takes, the firm will try to foster their growth and development. There is no better motivator for the rest of the team than to see someone "from the ranks" make career progress with support from management.

6. "There but for the grace of God ..." In the last few years we have all had to say good-bye to colleagues who have left our companies because of performance issues, a disconnect with a changing organizational culture or interpersonal reasons. All high-performance teams understand the reality that not all team members will make the cut. However, how the ex-team member is treated has profound implications for how continuing team members will commit to the team. If the ex-colleague is treated with respect, dignity and reasonable transition support, it is easier for the team to deal with his or her loss. If they just suddenly disappear, are treated like "non-persons" or are made the brunt of the "blame the absent party" management theory, your team players will assume that one day the bell will indeed toll for them and with equally inhumane results.

7. Fun. Contrary to the stereotype fostered by evil social scientists and jealous former classmates who could never pass calculus, engineers like to have fun! The profession has never been more competitive, the cost of doing business has never been higher, the price of even limited failure has never been more grave. With these difficult realities it is more important than ever to look for opportunities to celebrate the victories - both major and minor. Earlier in this article I admonished against company and office social / recreational events but only if they represented your firm's sole effort at team building. They are a fun and motivating element of a comprehensive team building program.

Effective team building cannot be achieved overnight or by the adoption of a management guru's new buzzword or with a silver bullet. Though many events can sponsor effective team building, this article is intended to illustrate that team building is an on-going process not a singular event. And who better than an engineer could realize that something worth building takes time, brains, energy and a commitment to something that will last.

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Author: *Winning Job Interviews* (Career Press, 2009) *Love Your Job! Loving the job you have, finding job you love.* (O'Reilly Media, 1994)

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