FUN

The Forgotten Engineering Management Tool

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ABSTRACT

Techniques for creating a fun work environment are explored which result in creating an engineering staff that will out produce any other group. Step by step methods are presented to reduce paperwork, provide better ways of "wandering around" such as the no door policy and other related subjects that can provide a fun work environment that allows for increased production and reduced employee relation problems.

INTRODUCTION

Perhaps in engineering, like no other field, most enter because they believe it could be a fun career. Few are lucky enough to survive the rigors of nearly five years of study and then find a fun job. Engineering has more opportunities to provide that enjoyable job than most other careers, but few find it. Andrew G. Cotterman in his article "If You Would Lead...." [1] lists eight personal qualities common to all successful leaders, one of which, is sense of humor. Yet many engineering managers lack this vital quality. It is openly perceived by the general public (those not in engineering) that engineers are, as a whole, a bunch of humorless stuffed shirts who have no interest in having fun in their life -- much less in their workplace. This, of course, isn't true but it is the image carried by the profession and many engineering managers bring it into their management style at the cost of reduced output. Therefore the question is "How do you get an engineer to have fun in their work, and increase their output?" Maybe a better question is "What am I doing as a manager that stops my engineers from having fun?"

Only half the employees in a major survey of the American workforce say the effort put into their job is over and above that required to hold it. The overwhelming majority, (75 percent), say they could be significantly more effective [2]. Most of us know at least one person who puts their all into a hobby, like trains, model building, ham radio, or some other related hobby and only half heartily does their job at work. Why? Because they are having fun with the hobby and not with the work. One might therefore overlook the obvious: work can and should be fun in order to achieve maximum output. Is a sense of humor that leadership quality that distinguishes effective leaders from ineffective leaders? That's hard to say. For the last seventy five years literally thousands of empirical investigations of leaders have been conducted [3]. Few studies have drawn the conclusion that having fun, or allowing others to have fun is a part of successful leadership. Most list job satisfiers such as achievement, recognition, responsibility and work itself, but few ever mention just plain old fun.

It is also hard to believe that job stress can not be lower with the attitude that the job is fun. Dempcy and Tihista (wife and husband) place many psychosomatic illnesses at the base of stress [4]. While the subject of fun is never directly addressed in their work, the underlying theme is, if you didn't have these "Stress Personalities", life, and therefore work, would become more enjoyable and your health and productivity would increase.

DOG TASKS

If you desire to increase your productivity by creating that fun place to work, the first step is to look at the pivotal figure in any organization, you. As a supervisor what type of image do your employees see when they look at you? Are you nose to the grindstone? All work and no play? If that fits you, don't start by going around with an unfamiliar smile on your face, most would think you have lost your mind. Then where do you start? Make a list of those job tasks, mostly paperwork, you give out to all employees that you feel are dog jobs. Don't forget weekly reports, monthly reports, and quarterly reports. Now go over this list and cross out everything that doesn't add to the output of your group. Also put a question mark by those items that your boss placed on you and you in turn passed on. All those with question marks can now become your goals for elimination through negotiation with your boss. The ones you crossed out you can eliminate without anyone's approval.

Nothing short of the Nobel Prize pleases an engineer more than knowing that some useless piece of paperwork has been lifted from their job. If you find you can't stop enough of this useless paper to make a real dent in the dog jobs, consider ways to shorten it or automate it on your personal computer, thus removing it from the engineers who have real work to do.

PROPER TOOLS

Now that the subject of personal computers or PC's has been brought up, this leads to the second step in creating that fun place to work: providing the engineer with the best tools possible. This means test equipment, parts for experiments, as well as machines for data reduction. At this point in time all engineers should have at their side a PC; this is no more than what the slide rule was twenty years ago. Don't expect quality work from employees if you are not willing to provide the quality equipment required to produce that work. Don't wait for the engineer to come to you, go to them and ask, "What do you need?" This is somewhat akin to "management by wandering around" [5]. If the engineer has to ask, or, in some cases beg for their tools, it may become easier just to do less with less.

Unless you get out in the "field" with your engineers you have little knowledge as to what equipment they are using and almost certainly no knowledge of what is required. It is hard to have fun when the equipment you are using is old, out of date, and has to be repaired every day or so.

At this juncture you now have two lists, one for the dog tasks that is hopefully getting shorter and one for equipment or tools that is getting longer. Remember, the idea is to eliminate the first list and acquire all the items on the second list.

NO DOOR POLICY

Supervisors are frequently unaware of the contradictory messages they send and their motives for doing so. You may tell your subordinates that you expect them to provide honest criticism and at the same time communicate disapproval of candid feedback through subtle, and sometimes not so subtle, cues [6].

In a management role, you may say you are more concerned about performance than obedience for its own sake. Many managers communicate subtly to employees that obedience and deference are just as important, if not more so. This is usually subconscious on the manager's part. Engineers that are top producers find it hard to be obedient to their bosses and produce at peak

levels. Supervisor requests may in some way cross their ethical values and rather than be disobedient, they simply produce less while being obedient to their supervisor. A question to ask yourself before making a demand is, "How would I feel if my boss behaved this way or demanded this of me?" The next time you are tempted to call an engineer in at a moments notice, why not pick up the phone or walk down the hall and acquire the required information. Remember how angry you got the last time your boss asked you to come running on a moments notice without considering what you were doing at the time.

Announcing that you have an "Open Door Policy" does not assure you will have honest feedback. Many apparently assume that such a policy alone is sufficient to guarantee a fully open relationship. The simple truth is your open door policy should become a "No Door Policy" that is developed by employees' trust in your concern for their well being and interest in them enjoying their job. If you encourage honest feedback, people rarely believe that you mean it, generally they won't risk testing your sincerity.

Direct questioning employees rarely works, you must look for subtle cues. Eventually, you can create the necessary atmosphere of trust, but not instantly. It will come from consistently demonstrating fairness and honesty toward the people working with or for you. Nothing destroys an open door policy faster than supervisors who lose their temper over something they are being told. The next time the employee will keep his or her mouth shut and just hope the problem goes away or solves itself. Good ideas will remain unexpressed because subordinates believe they will be punished for disagreeing with their supervisor. Oliver Wendell Holmes was reported to have said, "There is no point in boasting that your door is always open if your mind is always closed" [7]. Therefore the third step is to operate with a no door policy that allows you to go to the engineer as much as it allows the engineer to come to you.

MANAGER VS LEADER

One of the most profound statements on the subject of manager vs leader comes from the book "Leaders" by Bennis and Nanus. It is buried in the middle of page 21, almost unnoticed:

"Managers are people who do things right and leaders are people who do the right thing." [3]

Most engineering supervisors are referred to by some title that either contains or implies the title "manager" but their job, if done well, is leader. While your boss, from an upper position, may well look to you as a manager to do things right, your employees look for you to do the right thing. On the surface this may appear to be an unsolvable conflict, and sometimes it is, but not always. When managers reach the stage that they understand that real power stems from those who work for them and not from within themselves, they begin to understand that getting the right thing done occurs when they do the right thing.

This does not mean that your boss is going to understand why you took a position that does not agree with established policy on a subject. As an example, a new policy concerning lunch hour has been decreed from above and it runs contrary to your group's practices that have been working well. As a manager (do things right) it would appear that you have no choice but to do as you have been told. However, as a leader (do the right thing) it would, in effect, harass your staff to change the rules and could reduce their output. Therefore, as a leader, you must oppose this change. Do not confuse obedience with useful output. If you want to create a place where engineers can produce and have fun you must assume the role of leader and do very little managing.

This is not done without some risk, and should you be unwilling to accept this risk, you will continue to manage and will never lead. Not all of upper management sees a leader as a desirable employee and, as has been pointed out earlier, may prefer to have obedience over creativeness and leadership. If you feel you must always please your boss, and therefore receive that top yearly bonus or rating, then don't embark on assuming a leadership role in creating a fun place to work. Without this risk item in your management tool kit, you are doomed to failure or creative lying, which is only a short term solution.

Dr. Hersey sums it up quite well in his book, "The Situational Leader", when he says, "You may see yourself as a very humanistic and caring person, but if your followers see you as hard-nosed and bossy, their perceptions, not yours, will affect their behavior" [8]. You must be seen as a leader by those under you, and not by yourself or those above you, to be effective. It is not enough that you get results; you have to get people turned on about their work. More succinctly - the next step is to be more leader than manager.

TURNING ON ENGINEERS

When Peter F. Drucker in his classical work "Management" refers to the knowledge worker and the advanced knowledge worker, he surely had engineers in mind when he said:

"This means that no one can motivate him. He has to motivate himself. No one can direct him. He has to direct himself. Above all, no one can supervise him. He is the guardian of his own standards, of his own performance, and of his own objectives. He can be productive only if he is responsible for his own job." [9]

Drucker also refers to being "turned on" or "turned off" and relates this to an electrical appliance, but admits that most people react rather than act and therefore the impulse lies outside of them. If the impulse to act lies outside the knowledge worker (engineer), how does he or she become motivated? The engineers must be made responsible for their own work and therefore must have the freedom to set their own goals against the goals of the employer.

Implied with this responsibility is the associated rewards, be it money or praise, that go with that responsibility. They must be viewed by management as they view themselves: winners. The engineer must be encouraged to take risks and at the same time rarely be punished for failures. Many organizations call for risk taking but punish even tiny failures.

Under most conditions, if you wish to "turn on" the engineer, a supervisor should never supervise. Strange as it sounds "the proper role of the supervisor is not supervision" [8]. The job should demand training, placement, teaching, guiding, and help in the standard setting, but never supervision if you want a high output fun place to work. Engineers expect their supervisors to be their spokesperson and expect them to provide protection against managerial demands and managerial ignorance.

RESULTS OF FUN

So far the only result shown for having a fun place to work is higher output. As important as that might be to any organization, there are other benefits that result from having fun at work. One of the key benefits, as well as a good indicator of a fun workplace, is reduced sick leave usage. Engineers don't seem to have as many minor illness when it is fun to go to work. Find any shop where the employees enjoy their work and you find low usage of sick leave. I know of some engineers who have not used a day of sick leave in over ten years. When asked if they enjoy their work, the answer is always, "yes". Illness has been shown by Dempcy and Tihista [4] to be a product of stress caused by pouring all your energy into a job, working long hours under extreme pressure and ignoring personal discomfort. Yet many engineers work long hours for no extra pay, putting most of their energy into the job and find little stress in their workplace. They show all the classic signs of a stress personality but none of the negative results. They are having too much fun to get sick.

Another important factor that results is the extremely low rate of turnover in a fun workplace. Obviously, few employees would risk changing jobs, even for higher pay and better benefits, if they are enjoying going to work every day. While benefits and increases in pay are not to be forgotten in the fun workplace, they may no longer become a driving force. It is often stated that, "You can't

underpay the engineer that is enjoying the work and you can't overpay the engineer that hates the work." [10]

Other little fringe benefits of the fun workplace are little to no office in-fighting, less fatigue on you and your employees, fewer drug and alcohol problems, and a nice place to go five or six days a week.

THE FUN STOPS HERE

All this discussion about a fun workplace could lead you to believe that everything should be fun and all the other problems will just slip away. This is not the case. Some problems can't be treated as fun or left to the engineer, as an individual, to solve.

The first place fun stops is safety. There can be no compromise when the health and safety of your staff is concerned. While you can and should involve all in determining safe conditions, it is the supervisor that ultimately must assure a safe workplace.

Another place fun stops is drug and alcohol abuse. Again, it is the sole responsibility of the supervisor to take on these problems; no fun allowed here. The same goes for prolonged poor performance. Not every knowledge worker can perform in a fun environment and therefore this problem must be attacked in a humanistic and concerned manner.

Engineers, thirty years ago, were almost totally white males. This is no longer the case. Women and minorities have made inroads into the profession. Drucker's quote used earlier about the knowledge worker assumes a male (him) worker, and this was published in 1973. This is not to imply that Drucker is a supporter of male chauvinism; but if written today, the word "them" could easily replace "him" without changing the thought or meaning. There can be no room for fun when dealing with sexual or minority problems. These situations need to be dealt with openly with all employees but always in a manner becoming the seriousness of a fair and open workplace.

Personal problems that employees choose to share with you is another area that must be treated with great care and seriousness and never be allowed to be treated as fun. The fun supervisor must determine those areas where no room is left for anything but hard work to solve the problem. No one thinks it fun when they have a personal problem that they consider serious enough to bring to their supervisor.

Therefore, the last step in creating a fun place to work is, never treat lightly any problem that involves a serious matter. Your employees expect you to take on these problems without any hint of humor or fun. On the other hand, don't allow trivial problems to be treated as serious ones.

SUMMARY

No one ever said being a supervisor or manager was going to be easy. In this business you take your licks without complaining and act as though the outcome were exactly what you wanted. It's perfectly all right to talk about that rotten deal to your spouse, but around the office

whining is not acceptable. Creating a fun place to work is hard work: balancing the demands of your boss, while protecting those working for you, requires more energy than any engineering assignment you ever had.

When you have begun to bring your organization into this fun attitude and start to see positive results, then it is time to put that unfamiliar smile on your face. Don't be surprised if no one notices it now.

DISCLAIMER

Opinions expressed in this paper are solely those of the author and do not necessarily represent the opinions of the U. S. Army or the U. S. Army Missile Command.

REFERENCES

- [1] Andrew G. Cotterman, "If You Would Lead...", Chemtech, June 1986.
- [2] Daniel Yankelovich & Associates, Work and Human Values, New York: Public Agenda Foundation, 1983.
- [3] Warren Bennis and Blurt Nanus, Leaders, Harper & Row Publishers, New York, 1986.
- [4] Mary Dempcy and Rene' T. Tihista, Your Stress Personalities, Presidio Press, Novato, California, 1981.
- [5] Thomas J. Peters and Robert H. Waterman, In Search of Excellence, Warner Books, Inc., New York, 1982.
- [6] Fernando Bartolome' and Andre' Laurent, "The Manager: Master and Servant of Power", Harvard Business Review, Number 6, Nov-Dec 1986.
- [7] Tom Dodds, "Super Short Subjects", Today's Supervisor, National Safety Council, Chicago, Ill. Volume 31, no. 7, July 1987.
- [8] Paul Hersey, The Situational Leader, Warner Books Inc., New York, 1985.
- [9] Peter F. Drucker, Management, Harper & Row Publishers, Inc. New York, 1973.
- [10] Robert F. Russell, "Personal conversations with myself over many years", Huntsville, AL, 1965 to 1987.

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GOAL ORIENTED MANAGEMENT APPROACHES TO COMPANY RENEWAL

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Abstract

An important aspect of company renewal depends on management recognition and utilization of the unique capabilities of its employees. This view of renewal requires removing or modifying authoritarian management structures to allow employees performing direct labor functions to have greater authority in how the business of the company is performed. Prerequisite to any such plan for renewal, strategic goals must be well defined, not only in terms of profits, market share or production quantities but in terms of the nature of the company's business. Effective use of creativity and teamwork and the establishment of explicit employee objectives depends on a common understanding of these company goals. This paper describes ways in which management can facilitate company renewal and the implementation of strategic objectives. It can do so by actively directing the institution of processes which are focussed on employee creativity and by allowing widespread participation in management decisions.

Meaning of company renewal

The idea of renewal as applied to companies comes from many sources and has recently been expressed in Robert Waterman's "The Renewal Factor".¹ The renewal concept refers to change, not as a one time process but as continuing over the life of a company. It implies that change is necessary not just to allow company growth and improvement but to prevent stagnation and failure. Orientation toward a central goal and the origination of change at each company level are critical in the renewal process.

The need for employee participation is expressed by Robert Waterman in this way:

"There was a time when people were 'factors of production,' managed little differently than machines or capital. No more. The best people will not tolerate it. And if that way of managing ever generated productivity, it has the reverse effect today. While capital and machines either are or can be managed toward sameness, people are individuals. They must be managed that way. When companies dispirit individuals they defeat their ability to change. When companies encourage individual expression, it is difficult for them *not* to renew. The only true source of renewal in a company is the individual."²

One of the greatest challenges is to inspire employees at every level to look for positive ways of changing their company. But employees cannot be asked to find new ways of operating

unless the mechanism is in place to allow these changes to be put into practice.

Renewal is a process of evolution. The final form of the company need not be determined but its central idea must be known.

The Company as a System

In order to renew there must be a concept of the company as a whole. There must be objectives which reflect the company as apart from those of individual departments and individual employees. Once these objectives are defined, improvements made within departments can be evaluated with respect to company needs. This idea involves thinking of the company as an integrated system. A system can be defined as having a number of interrelated parts which are conceived as a whole. As with any system, a company requires an operational need which is the reason for its existence. This operational need is the function the business serves in society. It is the answer to the question, "What is the purpose of the business?" The central goal cannot be to make a profit. Profit can be the motive for an individual but it is not the goal of the business itself. Peter Drucker says it this way:

"...profitability is not the purpose of but the limiting factor on business enterprise and business activity. Profit is not the explanation, cause or rational of business behavior and business decisions but the test of their validity."³

The company (system) is made up of all its functional departments. It must continuously evolve as customer needs change and processes and technologies improve. In addition, each individual within the organization is changing in response to the changes around him. The process of system evolution is one in which each functional department continuously interacts with every other. This interaction is necessary to allow each part of the company to respond to changes in the whole. Evolution may be implemented through guidelines which establish well defined and active interfaces between each functional group. The customer is part of the system. Much of the impetus for the changes within an organization is provided by his changing needs and the need to maintain a competitive advantage. But the company is also changing the customer by advancing new ideas, solving problems in unique ways and providing insight into how his needs can better be met.

One can look at the process of company evolution in the same way as the integration of an electro-mechanical system. In an electro-mechanical system we refer to system engineering, as being responsible for system integration, where integration "ensures that each piece of the system will work together to realize system goals."⁴ In a company, we must look at management for performing this function.