
Project Management and People

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These days a project manager can easily become so bogged down in the details and interruptions of scheduling, costs, and resolution of technical problems that it is easy to forget that people are an integral part of the total equation. One of the manager's primary responsibilities to employees is to motivate them.

Motivation is no easy task. A motivated employee works to get the job done; not just to earn a paycheck. The manager's responsibility is to create the conditions that will lead the employees to want to do their jobs.

A motivated employee, by definition, has a sense of pride and self-worth. The manager can help to instill these qualities in three basic ways: by setting an example, by demonstrating understanding, and by recognizing the employee's accomplishments.

Setting an Example

An effective manager leads by example. Enthusiasm about the projects undertaken, steady and effective work habits, and support of the employees in their efforts to support the project, lead to effective work.

A corollary of leading by example is informal communication. The manager must keep in touch with the employees. The manager should practice MBWA: Management By Wandering About. By spending time with the employees, informally, the manager will be aware of what they are doing and what their

problems are *before* the problems become big. The manager will be available to them when they have ideas and new solutions to problems that arise, and will be more receptive to their input into the projects they are all working on together. This informal give and take gives the employees a sense of teamwork, of ownership of the projects, and reinforces their sense of pride and self-worth, or motivation.

The wandering about technique was applied by J.R. Thompson when he assumed the Center Director position at Marshall Space Flight Center. Immediately, employees began to respond throughout the Center organization with more informal communications which multiplied the data exchange between elements by an order of magnitude -- or more. This approach did not change the need for formal communication, but multiplied the total exchange of information and improved efficiency.

The manager must be careful, however, to maintain a balance in this system of informal communication. Management must continue to set an example and to exercise leadership, and to walk the fine line between informality and comradeship on one hand and formality and team effectiveness on the other. Should the manager make a mistake, the manager will be able to recognize it, admit it to the team, take full responsibility for it, and correct it. Should one of the team members make a mistake, it will be caught and rectified before it causes a disproportional problem.

Demonstrating Understanding

Thirty years ago, Douglas McGregor put forward two opposing theories of management, called Theory X and Theory Y. Theory X describes people as lazy and irresponsible, and professes that they need to be manipulated, controlled, and threatened in order for them to accomplish anything. They need a sense of order, control (from above), and security. Theory Y says that people have an innate sense of responsibility, that they naturally want to work and to work well, and that they do best when given challenges to their ingenuity and creativity. Actually, people tend to respond to the way they are treated. If their management expects them to be unmotivated and lazy and imposes restrictions to their freedom, then the employees are likely to become unmotivated and lazy. If, on the other hand, the manager demonstrates the expectation that the employees will be as dedicated and as motivated as management, they will be enthusiastic and proud to be working on the team.

Part of demonstrating understanding of employees is knowing their individual strengths and weaknesses, and knowing how to take advantage of the strengths. Ideally, the manager will be able to match each employee exactly to a specific job; if that is not possible, perhaps the job can be altered to fit the individual strengths and skills of the employee. The results of this understanding are more feeling of accomplishment on the part of the employee and smoother, more effective functioning of the team as a whole.

When new employees are hired, it is not always immediately apparent from their work history what their special skills are. The ideal solution to the problem of where to place them on the team is to offer a rotating series of assignments at first, with immediate assessment of performance in each. After that, the new hire can be placed in the most challenging and most effective slot.

All new employees at Marshall Space Flight Center are on a rotational assignment for one year. They are placed in three or more organizations during this time, and both management and they select a "best fit" at the end of this assignment. Many new hires do not return to the organization that interviewed and hired them, a sure indication that rotation throughout the organization may provide a better fit for employees and the organization.

To ensure that employees are successful contributors to the project, the program, and the organization, the manager is responsible for good, clear communication. The manager must make individual work assignments clear, show the employees how their activities contribute to the organization's goals, direct their activities insofar as necessary, and provide them with adequate tools and the proper environment for their jobs.

A good manager will take the risk of repositioning current employees to build the future of both the employees and the organization. The manager is responsible for the employees' success. Perpetuating the status quo of the organization, while it is comfortable, can lead to stagnation of both employees and organization. Taking the risk of moving people around is a sign of an innovative and progressive manager, and, done intelligently, results in increased productivity for the organization and greater job satisfaction for the employee. The manager who knows the employees and their individual capabilities will be able to do this intelligently and successfully. Often the manager can recognize employees' strengths and potential better than the employees do themselves.

After the Challenger accident, the manager of the Space Shuttle Main Engine research and development efforts was requested to assume responsibility for the Flight Engine operation.

This did not fit the manager's development background and was accepted only after considerable persuasion. Within 18 months, the manager had praise for his supervisor's judgment of his capabilities and appreciated the new assignment.

Recognizing Accomplishments

The usual way to recognize outstanding performance in the workplace is by promotion and increase in salary. In some instances, particularly at NASA, such rewards are not an option, because the employee has "topped out," or there is simply no slot available to advance into. In those cases, it becomes necessary to discover other ways to recognize an employee's accomplishments and provide the feeling of upward movement. NASA frequently does this with awards and special recognition. A manager can supplement this with additional,

interesting assignments, or with organizational "perks."

Effective recognition is also personal. The day-to-day smile, pat on the back, encouraging word, or phone call to express appreciation for a job well done works wonders for an employee's morale. Say thank you. Of course, the employee is just doing the job, but the personal additional recognition aids in fueling ongoing motivation.

Recognition consists of both example and understanding, and is thus arguably the most important of the triad. Recognition is the manager's most powerful motivational tool. Management is ultimately responsible for the success of the project, the program, and the organization. Effective managers are effective leaders. Good managers grow through experience, education, and common sense.

NEWMAN'S LAWS

- **The length of the justification varies inversely to the dollars involved.**
Corollary: The significance of an item is inversely proportional to the number of words it takes to describe it.
- **The more elaborate the cover the less accurate the contents.**
- **The probability of creative innovation varies inversely with the refinement of the procedures.**
- **You can't hold a staff meeting without a staff.**
Corollary: You can't supervise them if you can't find them.
- **Newman's law of celestial mechanics: The last acceptable launch window for any given planetary mission is the one we are trying to get in the budget.**

-- E. Thomas Newman