management

When it comes to selecting managers, there are common assumptions that doom many to failure. By Steven Cerri

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ooner or later, nearly every mechanical engineer confronts the question of whether to move into management, and every manager is faced with selecting a new manager from the ranks of the engineering staff. By most accounts, this selection

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process is at best hit-and-miss, with as many new engineering managers succeeding as failing.

I believe the current selection process for new managers is based on myths that don't deliver. There's a better way.

The professional world is filled with myths about what it takes for an engineer to make the transition successfully to manager.

Some say that being able to conduct a performance review, or prepare a budget, or develop a schedule, or use Microsoft Project is sufficient skill to qualify for the title of manager. Some say that being able to do your technical work well is sufficient for promotion to manager of a team doing similar work. Some say that being able to inspire others is sufficient. Some say you should get an MBA. There is no shortage of ideas regarding the skills necessary to become a successful technical manager.

But there are five myths that seem to rise constantly and consistently to the top of the list. They are used over and over again to justify the selection of new managers, and over and over again they don't deliver. Let's consider them.



THE GREAT ENGINEER

One myth states that because you are doing such a good job as a mechanical engineer, you can obviously manage other mechanical engineers doing tasks similar to yours. Because you're

a good mechanical engineer and you seem to get along well enough with people, you can probably manage other mechanical engineers. You don't show any obvious personal faults or quirks. You seem to follow directions well and therefore you can probably give directions well.

While this rationale sounds reasonable, nine times out of 10 it won't work. It doesn't work because mechanical engineering and technical management are two separate disciplines. One deals with physical laws, objects, principles, and things that don't have feelings or talk back. The other deals with people—those seemingly unpredictable, emotional, sometimes tired and cranky creatures. To think that because you can deal with one well you can also deal with the other is foolhardy.



JUST LEARN THIS TASK

Another myth states that if you learn a few basic "concrete skills" like Microsoft Project, or how to conduct performance reviews, or how to develop schedules and budgets, or learn the

corporate policies and procedures, then you can be a manager. This myth is based upon the idea that management is a "no-brainer" and that management is dependent upon the successful execution of certain tasks or hard skills—that management is not really a difficult task and any bright person can do it. In this case, you've been identified as a bright person and you're missing only a few skills.

What this myth fails to comprehend is that what keeps new managers from being successful is not the lack of hard skills, but the lack of interpersonal, people skills.

Steven Cerri, president of STCerri International in San Ramon, Calif., coaches and trains engineers in management and leadership skills. His Web site is www.stevencerri.com. Technical management is not about acquiring a few new specific skills. Management is a new career. Management is a new way of thinking and moving through the world. It's a very different way of focusing on the world from that of an engineer or scientist. That's why success is not about skills like Microsoft Project or performance reviews. It's about motivating, and communicating and dealing with people.



MANAGEMENT BY OSMOSIS

There is also a belief that management ability will come to you if you spend time working with other managers in your organization. This myth is based on the idea that management is

not really a discipline but more of an art, which can be passed down to you through corporate teachers—that is, the current managers. Just follow them around, watch them, listen to them, do what they do, and you, too, can become a good manager.

The osmosis theory usually doesn't work. Training by example succeeds only if you have a good manager to work with who also happens to be a great teacher. A great teacher passes on to you the skills and the thinking processes required for success. The advantage to this approach is that you will learn what the company wants you to know. The disadvantage is that you will learn, and therefore propagate, the management mistakes of your teacher. The reason this method seldom works is that there aren't many good managers who can teach the why and how of what they do.

CREAM RISES

A dangerous myth holds that the best manager will appear from a no-holdsbarred competition. The rationale for it sounds like this: "We all know that cream rises to the top. Let the man-

agement candidates compete against each other and the best leader will appear." While it is popular in the more aggressive and competitive work environments, I have always considered this myth to be especially dangerous, because it appeals to a chaotic, aggressive mentality that doesn't train or teach. It is often the downfall of many potentially good or even great managers because they learn that aggressiveness is the key to success in their organization.

This myth postulates that management and leadership are innate, like the fat in milk, and that good managers and leaders are born, not made. Perhaps it is a belief that an instinct to manage is in the genetic code. It puts forth the idea that all an organization has to do is put the combatants in the ring and get out of their way.

I can guarantee you it just doesn't work. In fact, I have never seen this approach work. It produces a great deal of collateral damage. A lot of management careers are slowed or even terminated by this approach to management selection. (By the way, managers and leaders are made, not born.)



JUST FOR A LITTLE WHILE

Sometimes organizations assume that anybody can manage a small task. The manager thinks, "We need a shortterm manager on this small project. This isn't a big project. It will be over

soon, so you can do this for a while until we find someone more experienced to take it over."

This assumption is based on the idea that if you are given a small project or a task of short duration, you can't possibly do any real damage. Your goal is to watch over the task for a while and it will all be okay. Once again, this is a myth that believes management is not a discipline and that management can be successfully performed with little to no experience. The idea is that it's almost possible to "creep up" on being a manager.

It doesn't work because there is no training, no transfer of knowledge and skill, and no preparation.

JOB REQUIREMENTS

These five myths don't work because they ignore the fundamental structure required for technical management. The myths ignore the fact that an engineer has chosen a profession that engages in a very individualized process of finding answers to problems.

Management is not about individualized work. It's about teamwork. It's about working with and influencing others. For most mechanical engineers, management is a new career. It's about doing all those things you were not trained for and, in fact, it's about doing all those things you really didn't want to do.

In order to ensure that mechanical engineers are successful in their transition to management, they need training in new disciplines, disciplines that college didn't teach them. In fact, there are four new subjects that must be taught.

Management candidates must understand how they function. This is about self-awareness. When they're dealing with and managing people, managers must understand themselves before they can understand others well enough to manage and lead.

Management candidates must understand how others work. It stands to reason that, if you are going to lead others, you must understand how to motivate and inspire and manage others. You must understand others as well as you understand your technology.

Management candidates must understand that communication is their best management tool. In the final analysis, the only real tool a manager has to motivate, manage, and lead people is communication.

Management candidates must understand that personal flexibility is critical. Many unsuccessful management candidates fail because they are convinced there is but one "right" way to manage. Today's highly successful manager is willing to modify his or her behavior in order to be most successful and effective.

The following is a true story, about an engineer stung by the combination of common myths. John worked for a large, high-technology aerospace firm as a mechanical engineer. He was given management responsibility twice in his 15 years at the company. Both times, it was because he was a good engineer and his manager thought he could handle a small project managing two or three other mechanical engineers. In both cases, John received no training or preparation. He seemed to be a good engineer who got along with other people well enough. It seemed obvious to his manager that he'd be able to manage other engineers doing what he was doing. And this was a small project.

In both management assignments, John felt ill-prepared and, in both cases, he felt he did a poor job as a manager. In both cases, his managers agreed and thought John could have done better, but they didn't understand why he performed so poorly.

The sad point is that John didn't even know what the issue was that caused him to be less than effective as a manager. After these two difficult and disappointing attempts, John was afraid to accept another management assignment. What made him a good mechanical engineer didn't seem to work when it came to management.

It wasn't until John took one of my classes that he began to understand the importance of knowing himself and being good at people skills. What John and his managers didn't understand was that he brought to his management assignment the mentality of an engineer. What John needed instead was the mentality of a manager and leader, something no one had prepared him for.

Once managers and potential management candidates understand the importance of people skills, self-awareness, and communication skills, the selection of the next management candidate is a process based upon training and the willingness of the candidate to venture into a new area of career development.

College prepared you to be a mechanical engineer. It didn't prepare you to be a technical manager. That's your next career path, if you choose it. ■