Art Miller
IEEE-USA Careers Conference
November 2-3, 2000
Wyndham Hotel
San Jose, CA

How To Attract, Retain And Empower Engineers: Play To Their Strengths - The No-Brainer

This presentation will deal with three issues:

I. Matching critical work requirements with the competencies and motivations of the engineers is necessary if we are to satisfy the economic interests of the employer and the desire of the engineer for personal fulfillment.

II. The conventional way for most employers to attempt that match is through a 'becoming culture' where engineers are 'encouraged' to take on new values and ways of thinking, to develop new competencies, to acquire new motivations --- all aimed at becoming what the employer wants from them now or in the future.

III. The road less traveled by employers or their engineers is to seek to make productive use of the strengths possessed by those engineers as the way to achieve both economic objectives and rich career satisfaction.

I. MATCHMAKING

The way to retain and make productive use of engineers is to assign them work which engages their heart and mind. For if that is done, the employer not only builds its competitive advantage, but the engineers achieve what they want out of their careers.

Another way of expressing the same truth is that if an employer wants to prosper in today's environment, it must take steps to make sure that the engineers are in jobs drawing on their strengths and motivations. Similarly, the only way an engineer can find fulfillment in his career is by performing work which makes use of his competencies and drive.

In fact, where the work requires engineers, there exists a virtual law of human nature and wealth creation:

Nothing of ultimate competitive advantage can be accomplished in any job, in any function, at any level, except through engineers who are both gifted in performing the tasks involved and highly motivated to achieve the results desired.

Can there be any question that effective management is such productive use of strengths? The issue really is how do we make sure that our engineers are well matched with their work?

The secret to achieving good job match and its fruits of greater competitive advantage, higher levels of productivity, profitability, cutting-edge exploitation of emerging technology, tools, and techniques, and rich job satisfaction is contained in how employers understand the nature of their engineers.

There are essentially two ways to define the nature of your engineers, each leading to radically different results! One road, and it is the one most traveled, is to position engineers in a 'becoming culture'. In that scenario, management and the managers see the engineers as a work-in-progress on the road to becoming whatever they need them to become. This understanding translates into the following policies and practices:

II. THE 'BECOMING CULTURE'

1. **Selection and Promotion** - methodology which evaluates unassembled segments of education, experience, personality, aptitudes, available test results and the opinions of others...essentially raw material for you to work with. No attempt to assemble all the pieces into a whole, functioning person.

2. **Assessment Methods** (e.g. 360®, simulations, psychological tests) which reveal areas needing 'development' and therefore 'become' the basis for possible transformation.

3. **Performance Appraisal and Management**, which inevitably pursues the same agenda of improving voids or weaknesses so the engineer can 'become' more complete and better able to tackle a greater variety of assignments.

4. **Behavioral Change** programs seeking to realign engineers so they 'become' people with new ways of thinking, new values, and new abilities which conform with new organizational objectives and strategies.

5. **Core Competencies** possessed by the 'high-potential' engineers, used as a template and where missing, for 'becoming' goals.

6. **Success Principles** taught to those who want to 'become' successful, or more successful.

7. **Training Programs** aimed at causing engineers to take on board new attitudes and abilities, so they can 'become' more able to produce what the organization needs from them.

8. <u>Development Assignments</u> which thrust 'hi-potential' engineers into positions different from past experiences, so that they 'become' better able to tackle challenging future assignments.

Rarely, if ever, do those who seek to transform an engineer bother to find out what that engineer is especially good at and loves to do. They ignore unique make-up and especially the motivational engine that drives the engineer to superior performance.

The foregoing programs, typical in many large companies assume engineers are malleable, like putty, and can be shaped and reshaped by others or themselves in response to the current needs and thinking of the organization. The failure to identify the motivational dynamics of each engineer and the results of the 'becoming culture' have been devastating.

If I can extrapolate from 40 years' experience reinforced by others who have studied the issues, well in excess of 50% of employees, managers and executives occupy jobs which fit them like undersized shoes. Because of the importance of work to a means of personal identification and sense of self-worth, sustained job mismatch at any level imperils physical, psychological and spiritual health.

In spite of the fact that the 'becoming culture' reflects modern society, we have never seen any compelling evidence which proves that people can be changed at the level of spots and stripes. Have you? Do you know of anyone who clearly wasn't, yet became a gifted, motivated decision-maker, or planner, or creatively innovative, or at home in chaos or even ambiguous or uncertain objectives, or a political animal, or a team player, or a big picture person??

Why this plague takes so many down in every generation is because people have not developed a sense of identity and don't know better.

Simply put, they don't know at a practical level who they are. Suffering from a crisis of identification, they are therefore most vulnerable to pressures or enticements for them to become what others want or need them to become. Thus, they enter into the 'becoming culture', most frequently in their childhood or youth, and from which they will probably never escape.

Whether engineers are so endowed as to prosper a lot, a little, or hardly at all by means of their formal education, they nevertheless rarely find out what they have to give and want to receive. In that state of mind and limited self-knowledge, they enter the world of work...uncertain, but hopeful.

Upon entering the world of work, young engineers trust that someone knows better than they and will make good use of them. However, employers are only interested in getting the work done, regardless of how the engineers are put together. So, to close the gap between engineer capability and work requirements, employers universally embrace the ubiquitous but baseless doctrine that, regardless of their individual make-up, engineers can be expected to produce what is needed, and if they require a rework, can be trained, developed, motivated, incentivized, rewarded - all to become what the employer needs them to become. It is popular but mythical. The only engineers who manifest the new look, already possessed the abilities and motivation required to navigate the transformation sought by the 'program'.

III. PRODUCTIVE USE OF STRENGTHS

What is the second less traveled way? If the 'becoming culture' doesn't work, what does? Listen up now, the answer gets quite complex:

Step 1. You identify what the engineer loves to do and is good at

Step 2. You identify what each job requires in the way of competencies and motivation

Step 3. You match these job requirements with the strengths of the engineer.

So how do you identify what engineers love to do and are good at?[1] Are you ready? You ask them! You ask them to tell you every time they can remember whenever they did something that they felt they did well and really enjoyed doing. You start when they were kids, and take them up to last week - be it 20 or 50 years. You get them to tell everything they can remember they did that was personally significant. You go after what they did --- not their feelings or their conclusions or their excuses; you go after all the actions; you get them to revisit the scene of the triumph; you go for the mechanics; you press for more and more details on what they did and how they went about it. And, after you've exhausted their achievement history, you begin to look at the person and this extraordinary record - and the light slowly dawns on the significance of what you have uncovered.

For, coming through this personal story of their life, are recurring themes and threads; a tightly drawn mix of abilities, situational circumstances of great consequence, consistent objects and subject matter; ways of relating, and a certain desired outcome or payoff. There is this monumental phenomena: every time they did something they loved to do well, they repeated the same pattern of behavior, the same strengths, the same motivation. It's as if each engineer is designed for particular work.

[1]We use SIMA®, our System for Identifying Motivated Abilities, ©PMI Shares, Inc.

[CASE HISTORIES]

For each case studied, consider how readily you can answer these questions, critical to the engineer's productivity and work satisfaction:

- How to / not to interest him in joining your organization?

- What triggers her into getting seriously motivated; how long would the hard-driving last, and what sustains her interest?

- What assignments, tasks and roles would be a good / bad fit?

- What absence of or amount of structure and work definition is needed?

- What kinds of results or other work outcome would she use to measure her effectiveness?

- What is the kind of supervisor under whom he would prosper / wilt?

- On what team with what charter, role and duration would she likely be effective / ineffective?

- What sort of incentives and rewards would motivate him / turn him off?

- What is her range of flexibility to accommodate realignment of organizational priorities?

- What development assignments would stretch his strengths --- or would require him to deliver what he hasn't previously demonstrated?

- What is her potential to be a manager, a coach, a leader, a consultant?

Immediate benefits to those participating is an exploitable realization that the enormous reservoir of talents possessed by engineers, and only partially used, can be tapped into for exponential increases in productivity and work satisfaction.

Content Of The Motivational Pattern

Motivated Abilities

A. Acquiring Information, Knowledge & Skills?
B. Determining Value, Meaning Or Merits?
C. Deciding What To Do?
D. Preparing To Get A Job Done?
E. Getting The Job Done?
F. Informing And Influencing Others?

Subject Matter Which Excites

A. Abstractions?
B. Inanimate Things?
C. Living Things?
D. Informational Things?
E. Sensory Things?
F. Mechanisms?

Circumstances Of Motivating Value

A. Trigger?
B. Persistence?
C. Results?
D. Structure?
E. Environment?
F. Uniqueness?

Operating Relationships

A. Contributor? Relationships?
B. Influencer?
C. Overseer?
D. Supervisory
(i) Hands Off?
(ii) Supportive?
(iii) Collaborative?

Motivational Payoff (Clusters)

A. Comparing With Others?
B. Meeting Requirements?
C. Exercising Dominion?
D. Shaping And Impacting?
E. Following A Process?

Nature of the Motivational Pattern

A. Each engineer has an essence composed of a certain mix of motivated competencies

B. Which appears as an endowment and inborn, not the result of an interactive or developmental process; we characterize this as giftedness

C. Which is expressed as a pattern of motivated behavior and functions effectively as a system, each element functioning to enable, but also to restrain the collective expression

D. This Motivational Pattern of giftedness is purposive and seeks a certain outcome. Although predictable because it remains stable over time; in its essential elements, it lends itself to substantial growth and complexity.

E. An engineer's Motivational Pattern is irrepressible and functions regardless of its owner's awareness; it governs the engineer's perception of reality and how any job or role should be performed.

F. Feelings and emotional reactions experienced by the engineer are precipitated and coloured by the Motivational Pattern.

G. The Motivational Pattern captures the whole person in action, and identifies the driving forces characteristic of the engineer and how they will play out in a given situation.

Applications Of The Motivational Pattern

Wherever and whenever there is a concern about the current or future work behavior of an engineer, or a group of engineers, reference to his (their) motivational pattern(s) will either answer the question or lead to a solution of the problem involved. Issues of recruiting and retention, placement, compatibility, complementarity, innovation, performance appraisal, empowerment, conflict resolution, team formation and development, career discussion and management, career plateaus, mentoring, work redistribution, coping strategies, internal job search ---

should start with an understanding of the strengths of the engineer(s) involved.

Low-cost Motivational Pattern reports can be provided in volume for the use of engineers (Discovery MAP), or in collaboration with trained in-house staff, a more comprehensive report can be generated by PMI analysts for management use (Decision MAP).

Art Miller, President
PMI Shares, Inc.
230 Nettleton Hollow
Washington, CT 06793
860-868-0115 (9776 Fax)
kvarriale@jobfit-pmi.com