

The precursors of today's engineers

Profession



**ASSIGN
BUSTER**

The precursors of today's engineers listed in the quotation from Wickenden had no classes and few or no books from which to learn scientific principles. How can you explain their success?

William Wickenden remarks were direct to the facts that the first engineers were self taught, geniuses in nature and well skill in technical aspects. Even without the formal scientific education they were able to engineer master creation such as the Roma's aqueducts and others. Their success came from the ability of observation and trial and error and a hands-on in the manufacturing process of the era. 1-2. Compare how well engineering and management satisfy the several parts of the definition of a profession.

The engineering profession involves the application of science and mathematics, practical training, experience and work-study to satisfy the human necessities. The management profession involve the way personnel are directed to a specific task or training. The Engineering management profession combine both resulting in a profession that is oriented to brings together the technological problem-solving savvy of engineering and the organizational, administrative, and planning abilities. 1-3. Why is it so difficult to answer the simple question " How many engineers are there in the United States?" Is the question " How many physicians are there in the United States?" any? Easier?

We can do an approximation of the engineer using the university graduation rate but due the long list of engineering field that doesn't require state registration as a professional engineer is difficult establish the total engineering working force in the US. Contrary to the

engineers the physician need to be register in the state that they are working and for that reason is easier to account for all physicians.

Comment on the sensitivity of U. S. engineering employment to a major change in the Department of Defense budget. What types of engineers would be especially affected?

Working in the department of defense NAVY, I can attest to the fact that reduction in the General funds of the Department of defense will reduce the MILCO projects and then a reduction in the civil engineering work force can be foreseeing.

What are the similarities in the definitions of management quoted from authors of management textbooks? Do the definitions provided by business executives differ in any way? Synthesize your own definition of management.

From this entire collection of quotes the common factor is the interaction and direction to the human factor that the manager need to performed to achieve the organizationgoals. All quotes have similar interpretation of management.

The work of creating and maintaining environments in which people can accomplish goals efficiently and effectively (Albanese10)

- The process of achieving desired results through efficient utilization of human and material resources (Bedeian11)
- The process of reaching organizational goals by working with and through people and other organizational resources (Certo12)
- A set of activities (including planning and decision making, organizing, leading, and control- ling) directed at an organization's resources (human,

financial, physical, and information) with the aim of achieving organizational goals in an efficient and effective manner (Griffin¹³) • The process by which managers create, direct, maintain, and operate purposive organizations through coordinated, cooperative human effort (McFarland¹⁴)

- The process of acquiring and combining human, financial, informational, and physical resources to attain the organization's primary goal of producing a product or service desired by some segment of society (Pringle, Jennings, and Longnecker¹⁵)

How does the job of supervisor or first-line manager differ from that of a higher-level manager?

The first line manager can be call as the “ do man” there are focus in the short range operating plans governing what will be done tomorrow or next week, assign tasks to their workers, supervise the work that is done, and evaluate the performance of individual workers. The higher-level look the operation from 30, 000 feet about sea water overseeing the big picture of all process such as; financing, cost, and business development. 1-7. How does the job of a top manager differ from the jobs in the several levels of middle Management?

As specified in the previous questions the top manager focus in the big picture of the organization performance or as they said the NAVY they don't want to know what is in hot dog the tell me the total hot dogs that we have. Question that they focus, the goals are reached? the funding is in place, all requirements are meet? .

Identify the three types of skills needed by an effective manager, as conceived by Robert L. Katz, and describe how the relative need for them might vary with the level of management.

The three skills that Katz suggested that the Manager needs are technical, interpersonal and conceptual, He describe that the first line of manager need to have the technical skill due to the position in the lowest level where there are supervising technical personnel. It also mentions that the interpersonal skill is need in the lowest and higher level because the iteration with people. Finally the conceptual skill is inherent to the higher level manager were they need to see the broad picture of the industry that there are managing. 1-9. From the 10 managerial roles provided by Mintzberg, choose three or four that you consider most important for the first-line manager, and explain your selection. Repeat for middle-level and top managers.

1. First-line manager: the manager require to be focus in the short range operating plans governing what will be done tomorrow or next week, assign tasks to their workers, supervise the work that is done, and evaluate the performance of individual workers.

2. Leader

3. The disturbance allocator

4. The resources allocator

2. Middle-level manager: They focus in the performance of the operation and served as the link between the lower and high management, The liaison

The monitor role

The disseminator

The negotiator

The resources allocator

3. High level manager: they focus on overseeing the big picture of all process such as; financing, cost, and business development.

The Figured head

The spokesman

The entrepreneurial

1-10. How would you distinguish between engineering management and management in general?

Engineering management require a technical background and expertise in the area of work , the decision making need to be according with the fundamental of sciences and engineering including all cost analysis and life cycle analysis. the general management is oriented to the management of no technical resources such as clerical and no technical personnel. We can simplify saying that depending whom and what are going to be managed is the requirements of the type of manager.