Managing people

Managing People and Organizing Teams

- Often the most difficult areas in managing software development projects

- "Most managers are willing to concede the idea that they've got more people worries than technical worries. But they seldom manage that way." (DeMarco & Lister, Peopleware)

- One reason: technical experts become managers

- Important areas:

    - Selectingright people for the job
    - Motivating people
    - Working as a team
    - Suggested Skills for a Project Manager

- Communication skills: listening, persuading

- Organizational skills: planning,goal-setting, analyzing

- Team building skills: empathy, motivation

- Leadership skills: set example, energetic, positive, delegates, vision (big picture)

- Coping skills: flexibility, creativity, patience, persistence

- Technological skills: experience, project knowledge

- Negotiation skills: negotiates with management to get good team members, enough resources and reasonable goals and schedule.

PM's Role between Management and Project Team

- Management/customer might set conflicting/impossible requirements and goals for the project

- Project team needs goals that are reachable within project schedule

- Project manager is a link between the groups and negotiates the resources and the goals.

How to Build Effective Teams

- Team cohesion

- Kick-off meeting

- Collocation

- Sense of team identity

- Frequent and free communication

- Trust building (e.g. role based, achievement based)

- Give frequent, easy opportunities for the team to succeed together and celebrate the achievement (e.g., team dinner after achieving a milestone)

- Jelled teams have funworking together

Organizational behaviour

- Frederick Taylor (1856-1915) 'the father of scientific management'

- Taylor's three basic objectives

    - To select the best people for the job;

    - To instruct them in the best methods;

    - To give financial incentives in the form of piece work

- One problem: 'group norms'

- Much of the work of Taylor was in factories and mines, working with manual workers. The 'instruction in best methods' involved breaking down a manual task into its component activities, identifying the best way of carrying out those activities and then teaching the workers to copy the approved method.

- This can be seen as treating the workers as little better than automatons – but it is also the way the sporting coaches often work

- The individual workers were encouraged to maximize output by paying them piece-rates e.g. by the units processed.

- One difficulty with this is that workers learn that increasing output can in fact lead to the piece-rate being adjusted in a downward direction. Maximizing output can also be physically and mentally exhausting. Groups of workers therefore tend to converge on an agreed output rate which does not require a constant 100% effort.

➤ Hawthorne effect

- 1920's – series of experiments at the Hawthorne Plant of Western Electric, Chicago

- Found that simply showing an interest in a group increased productivity

- Theory X: there is a need for coercion, direction, and control of people at work

- Theory Y: work is as natural as rest or play

- The Hawthorne experiments investigated the effect of various factors such as improved lightning on productivity. It was found that the productivity of the control group (whose working conditions such as lighting were not changed) increased – the fact that someone singled them out for observation improved their motivation.

Theory X

■ The average human has an innate dislike of work

■ There is a need therefore for coercion, direction and control

■ People tend to avoid responsibility

Theory Y

■ Work is as natural as rest or play

■ External control and coercion are not the only ways of bringing about effort directed towards an organization's end

■ Commitment to objectives is a function of the rewards associated with their achievement

■ The average human can learn to accept and further seek responsibility

■ The capacity to exercise imagination and other creative qualities is widely distributed.

Selecting the best people

- Belbin distinguishes between **eligible** (having the right qualifications) and **suitable** candidates (can do the job).

- Eligible candidates- have a curriculum vitae which shows the right and required details

- Suitable candidates- who can actually do the job well.

- The danger is employ someone who is eligible but not suitable

- The best situation is to employ someone who is suitable but not eligible! For example, these are likely to be cheaper and to stay in the job.

- 1968 study – difference of 1:25 in time taken by different programmers to code program

- Other research found experience better than maths skills as a guide to software skills

- Some research suggested software developers **less sociable** than other workers

- Later surveys have found no significant social differences between IT workers and others – this could be **result of broader role** of IT in organizations

There is some evidence that there is a very wide variation in software development skills – going back many years. Some research found that computer people had fewer social needs than other professionals. Later research has not found any significant difference – this may be because the 'ICT profession' has become broader in scope.

A selection process/Recruitment Process

1. **Create a job specification.**

2. **Formally or informally the requirement of the job**

    a. Content includes types of task to be carried out.

3. **Create a job holder profile**

    a. Describes the characteristics of the person who could do the job, quality, qualification, education and Experience

4. **Obtain applicants**

    a. Identify the media that potential job holders are likely to consult. Elicit CVs

5. **Select potential candidates from CVs.**

    a. Do not waste everybody's time interviewing people whose CV clearly indicates are unsuitable.

6. **Further selection, including interview**

    a. Selection processes could include aptitude tests, examination of work portfolios. Make sure selection processes map to the job holder profile

7. **Other procedures.**

    a. e.g. taking up references, medicals etc