Brady Field

Software Engineering Project Management

**Important points**

“One of the major goals of software engineering is to improve communication among the many organizations that are involved in developing a software system.” [205]

“A good leader can align the personal goals of subordinates with the project’s organizational goals. Problems can arise when a project manager who has only positional power comes into conflict with a subordinate who has personal power over project members.” [206]

“The project manager should always acknowledge the special needs of the highly qualified, technically trained engineers and scientists who staff the project.” [207]

“Merely having goals and motivation will not prevent people from making mistakes. Managers must correct their movement along paths that are in the best interests of the company.” [208]

“Along with coordination, the project manager is responsible for facilitating communication both within the project and between the project and other organizations.” [209]

“Controlling is the collection of management activities used to ensure that the project goes according to plan. Performance and results are measured against plans, deviations are noted, and corrective actions are taken to ensure conformance of plans and actuals.” [210]

“The project manager is responsible for developing and specifying standards of performance for the project.” [211]

“Tools and techniques that effectively measure the quality of a software product are generally not available. Most software engineering standards are concerned with the process of developing software.” [212]

“The project manager is responsible for establishing the methods of monitoring the software project and reporting project status. Monitoring and reporting systems must be specified in order to determine project status. The project manager needs feedback on the progress of the project and quality of the product to ensure that everything is going according to plan.” [213]

“The project manager is responsible for measuring the results of the project both during and at the end of the project. For instance, actual phase deliverables should be measured against planned phase deliverables. The measured results can be management (process) results and/or technical (product) results.” [214]

“Binary tracking is the concept that a work package is either done or not done (that is, assigned a ‘1’ or ‘0’).” [215]

“Software engineering procedures and techniques do not alone guarantee a successful project. A good project manager can sometimes overcome or work around deficiencies in organization, staffing, budgets, standards, and so on. A poor manager stumbles over every problem, real or imaginary, no number of rules, policies, standards, or techniques will help. In the hands of a competent project manager, the methods and techniques discussed in this article can significantly improve the probability of a successful project.” [216]

**Disagreements**

“Satisfied needs are not motivators. For example, an individual who has adequate job security cannot be motivated by increased job security.” [208]

The argument here is that a benefit that is considered to be good enough cannot be increased to further motivate the individual. While this may be true for job security, it overlooks the prime motivator that persuaded the engineer to take the job in the first place: salary. The dollar amount is the prime motivation for an engineer to show up to work from day to day. While an individual may be satisfied with his or her current salary, that person can many times be motivated by further increases in salary. Individuals are not generally apathetic to increases in pay simply because their current salaries are perceived as good enough.

**Questions**

I understood everything in the article.