Using the PSP

Outline

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- Using the PSP
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Outline

- How do you decide how to use a PSP in your daily work?
- You must weigh the costs and benefits, and make a commitment.

Review of PSP Levels

(Humphrey, 1995, p. 11)

- PSP0: Current process
  - Time recording
  - Defect recording
  - Defect type standard
- PSP1: Size estimating
  - Test report
- PSP2: Code reviews
  - Design reviews
- PSP3: Cyclic development

Overview

(cf. Humphrey, 1995, p. 471)

- How do you decide how to use a PSP in your daily work?
  - You must weigh the costs and benefits, and make a commitment.

Making Personal Commitments


- Managers want your commitment.
- They want you to complete a job within a specified time/budget.
- You will be asked to prepare schedules - because they believe you are a capable professional.
- They will test your commitment by pushing you to “crash” your schedule.
- You can address this pressure by doing your homework:
  - Have good data to base your estimates on.
  - Make realistic plans.
  - Show that you have a minimum cost plan, but that if they want a minimum time one then they need to decide how much they are willing to spend to accomplish it. Tradeoffs have a cost.

Using the PSP in an Organization

(cf. Humphrey, 1995, p. 473-475)

- You can use the PSP alone.
- However, it is easier and nicer when others or the whole organization follows a similar discipline.
- They may then decide to try some of the PSP for themselves.
- Remember not to compare yourself with others - better or worse.
- If the organization is interested furthering the use of the PSP, it should provide training time and indicate its value by asking about it regularly. Engineers know what management thinks is important by what it asks about...
The Personal Costs of a PSP

Three potential costs of using a PSP:
- Time to learn and use it.
- Emotional cost of maintaining the discipline.
- Potential risk to your ego.
  - We are not all world-class developers.
  - But we still can be good, capable professionals.

Four Stages of Learning:
(cf. Fig 14.1, p. 479, and Bohn’s stages of knowledge)
- Unconscious incompetence
- Conscious incompetence
- Conscious competence
- Unconscious competence

The Personal Benefits of a PSP
(cf. Humphrey, 1995, p. 478-480)

Insight into your talents and abilities
- Stimulation from unlimited continuous improvement ideas
- Framework for personal improvement
- Increased control over your work
- Pride and personal accomplishment
- Basis for effective teamwork
- Conviction on how to do the job

Coaching
(cf. Humphrey, 1995, p. 481-483)

There is not a “coaching ethic” in SW development, as there is in other disciplines.
- Sports
- Medicine
- Academics

Software coaches would have 3 objectives:
- Motivate superior performance
- Insist on dedication to excellence
- Support and guide individual development

The Responsible SW Professional
(cf. Humphrey, 1995, p. 483-485)

Professionals:
- Use effective methods in their work
- Recognize their strengths and weaknesses
- Practice, practice, practice
- Learn from history
- Find and learn new methods

Your Future in SE
(cf. Humphrey, 1995, p. 485)

Prepare yourself for opportunities by building your skills and a discipline for software engineering.
You will be able to take advantage of unforeseen opportunities because you are then more ready for them than if you had not developed such a discipline.