

Programmers who conscientiously apply the Personal Software Process in all their projects are behaving like real engineers.

1. Introduction

In recent years, the software is using in everywhere in the world. More and more software engineer are needed to keep up with the need of the software. Engineer need tools to improve their performance to be more competitive than other engineers to get the contract.

Personal Software Process (PSP) is a kind of tools that can help software engineer to make the software engineering project more efficiently and have better quality. PSP is a well know way to help individual software engineer to learn to control and improve their software process [2]. By applying PSP, software engineer can enjoy the benefits it bring to them, just like fewer mistakes in coding, better planning and estimation, better quality [1]. PSP is not only good for the software engineering project but also good for the engineers who contribute to the project. PSP help the engineer to know their capabilities about how well they can do and how efficiency they can do [1]. What is more, after having apply PSP into several project, individual software engineer can find his own way to work efficiency [2]. PSP using a standard process and tracking method to evaluate engineering performance and managing work quality [4]. After applying the PSP conscientiously, the quality, efficiency, individual software engineer estimation will be developed and the software engineer will be much more like a real engineer.

2. The reason why engineer use PSP to improve themselves.

SCHRAML, T. state in the dark side of agile that people are focus on finishing but not in good quality as an Agile Methodology [3]. But finishing quick and in time is not better than finishing in a good quality. What the engineer expect in the project is not only about finished the project in time but also finished it in a good quality. [3] What is more, the engineer also expect that they can get benefits from the project and improve their capabilities.

2.1 The good quality.

PSP have a defect log tracking method and by using this method student can significant decrease the mistake they will make in the project. From the experiment did by Abrahamsson P in year 2012 we can find that the reduction in total defect density is supported [2]. After apply PSP in the project, less defects logs are removed before compiling, which means that the cost of the project is reduced. Also seen from the diagrams of the experiment did by Abrahamsson P, the PSP0/1 group have 66% of defects removed before compile compare with 40% in PSP2/3 group [2]. After learning from the previous project, software engineer have less chance to make the same mistake and put it into the defect log, this will improve the quality and reduce the cost of the project. In the speech of the W. S. Humphrey, he state that the most significant advantage of PSP is that it can help student to do high-quality work [3]. Additionally, by applying the PSP, software engineer can focus on doing specific work in different phase, having a good plan is good for keep the whole project in a good quality.

2.2 The efficiency

PSP have a defined process that can make sure the project is following the standard module and engineer are doing the right thing in the right time and not skip any phase in the project.

By using this kind of method, the project will doing step by step and developing efficiently. In the experiment of G. Rong & H Zhang, they have conclude that the PSP approach significantly improve the productivity. [1] And after several project with applying PSP, software engineer can find their own way to do the project in a more comfortable way, this will also help to improve the efficiency of the whole project. In the speech of W. S. Humphrey, he also mentioned that there are five times reductions in defect logs and the efficiency is increase by 25% [4].

2.3 Individual benefits

Applying SPS will also improve the skills in developing software. SPS is a defined process which defined by individual software engineer in their comfortable way. After leaning and applying PSP, software engineer learn how to define, plan, measure and control their own work [4]. After learning and applying PSP, engineer will find that paired programming also need individual software process module. Paired students have fewer defect log and have better program quality [3]. What is more, in the experiment by Abrahamsson P. they give a conclusion that the PSP estimation in size and time skills is not immediately improved but still got improved [2]. W. S. Humphrey also state that the PSP can help people get over the barriers that in their way of improving themselves.[4] In addition, PSP also help individual software engineer develop more skill to deal with work related to real industry [4]. These thing will also increase their competition with other software engineer and even make their team and even their company more competitive.

3. Conclusion

This essay introduce the basic information about Personal Software Process (PSP) and argue that apply PSP will help software engineer become more like a real engineer. Because the PSP have a defined process and following the process the software engineer will do specific things in specific phase and that will help with improve the quality of the whole project. At the same time, with the tracking method, the software engineer will know each time where they doing wrong and will avoid to do that again and this will significant improving both quality and efficiency. After few project the software engineer doing PSP they will be more productive and define their own process in PSP. They will also get improvement on size and time estimation slowly and know how much capabilities they have. They may also get their team and company more shiny among the competitors.

By improving the quality, efficiency and individual experiences the software engineer will be more like a real engineer. In addition, by applying the PSP method the software engineer will contribute more in pair or a team.