Importance of Teamwork and Design in Agile Software Development

Mayank Rawat  
 Software Engineering  
 Arizona State University   
 Tempe Arizona US  
 msrawat@asu.edu

Vaibhav  
 Software Engineering

Arizona State University  
 Tempe Arizona US  
 email@email.com

ABSTRACT

Agile method has been quite popular in software engineering for over a decade. This article will try to explain the effect of agile teamwork quality on the team performance and how the effects differ from that of a traditional software team.

INTRODUCTION

As the word “Agile” suggests, agile software development means development of software where requirements and functionalities of a software change continuously and regularly. It refers to a group of software development methodologies based on iterative development, where requirements and resolutions evolve through collaboration between cross-functional agile teams.

Before the evolution of agile software development, the Waterfall methodology was the standard for software development. This process required documentation up front before any coding was done. Business requirement document was written first that contained all the requirements that the business needed in the application. These documents were long with every aspect of the application explained in detail. This documentation was then followed by some non-functional requirement and user-interfaces and the coding will finally kick off. Coding would be followed by integration and then testing. If in between this process there was a change in the requirement then it would take a long process to review the change, communicate with other teams and fixing the code would be expensive.

However, the agile methodology focused more on documentation, self-organization rather than rigid management practices, and the ability to manage constant changes. This required collaborative work and high customer involvement.

**TEAMWORK IN SOFTWARE DEVELOPMENT** Teamwork in agile software development is very important and plays a key role. The following are the various factors that describe a teamwork.

**1.Teamwork Quality**

Teamwork quality is a construct with many sub-constructs.

**1.1. Communication**

Communication between the teams must be frequent, open and clear so that the information can be shared without any confusion.

**1.2. Coordination**

There should be common understanding among the team members when working on parallel subtasks, and agreement on budgets and deliverables. Many activities and task processes are delegated to different team members and synchronization of these activities is important for a successful project.

**1.3. Balance of Member contribution**

The ability to bring out the team members full potential. Contribution should reflect every individual’s specific knowledge and experience.

**1.4. Mutual Support**

Team members willingness to support and help other team members in carrying out their tasks. Some agile development methods include collective code ownership, which in turn stimulates mutual support and collaboration.

**1.5. Cohesion**

Team members motivation to maintain the team and realize that team goals are more important than individual goals.

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