

Agile development teams as an instrument for managing change at Universitat Jaume I



Universitat Jaume I

Ricardo Borillo¹, Andrés Marzal, José Pascual Gumbau, Vicente Andreu
¹Analyst-programmer at the Computer Science Service
Castellón (Spain)

Main objectives

Continuous improvement

Speed up development cycle

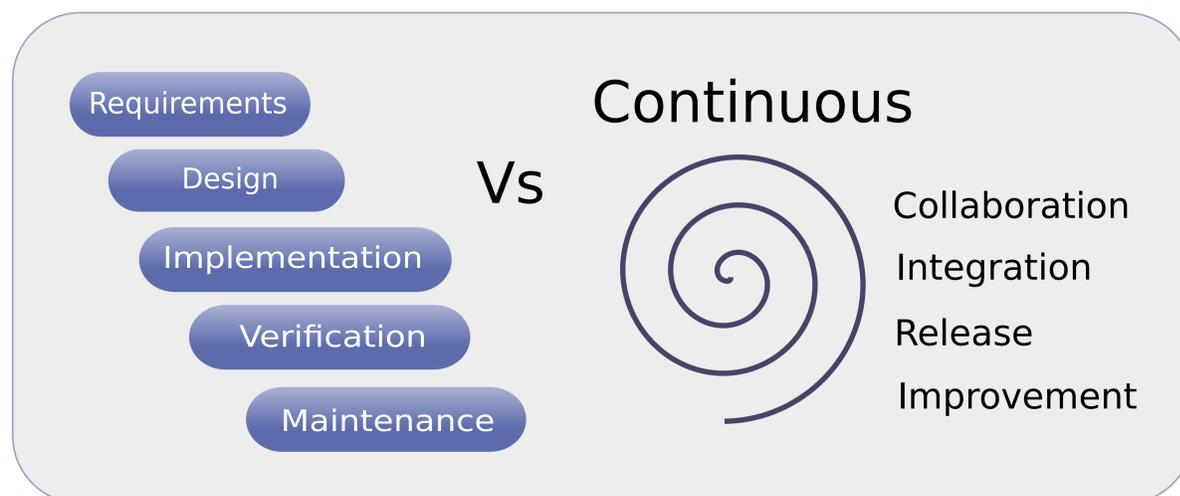
High level of satisfaction

One of the most important aspects in the organization is continuous improvement. In IT teams dedicated to software development, this vision of continuous improvement means to achieve a higher level of satisfaction in terms of user experience of our clients (students, faculty and staff) and to reduce the time spent on software construction and deployment (time to market).

To get a real continuous improvement in software development, all aspects regarding the full software life cycle must be questioned. Global aspects like the software architecture, the set of technologies used or even how the teams are working and what kind of tools they are using are aspects that must be reconsidered.

We will focus on how to achieve the basic objectives of software quality and time reduction in the basis of a team working in the construction of a software system, reinventing the way that things get done during the full life cycle of the development. This process of change is the result of a real experience that begins in the last quarter of 2010 at Universitat Jaume I and is still evolving today.

Methodologic change for IT Teams and software development



If we can not make some quality checks in the software using different kinds of testing and the end user can not offer feedback till the end of the project, then we are not meeting the first principle of the continuous improvement: **Software quality and user satisfaction**.

If we have to follow an strict and heavy methodology with a lot of phases and without any running version of the system till the end of the development, then we are not meeting the second principle of the continuous improvement: **Speed up the development cycle and the deployment of applications**.

This kind of waterfall development is **not aligned with our main purposes** and a new kind of methodology must arise, empowering the benefits of agile and quality based development and integrating users from the beginning.

Agile development at Universitat Jaume I

A methodological change, and specially in an university, also imposes an internal change in the development teams that are trying to adopt it.

Adopt an agile methodology like Scrum, Kanban or the best practices described by XP, the development team needs a deep training and a set of tools that help them to control this iterative cycles of development, letting them to get the maximum benefits.

Training is not only necessary at the beginning of the project. We must train our team in a continuous way. In this environment, the role of coach or facilitator must be considered to allow the correct growing of the team in the organization.

Regarding tools, the main objective is to construct a tools ecosystem that help us to ensure the correct interaction of the team to produce high quality software as soon as possible.

Conclusions

Based on the real process of change in which Universitat Jaume I is involved, we will take into account the need to training the team and the need to professionalize the set of tools that compose our development environment to analyse how this factors can contribute to our main purpose of developing high quality software, adapted to the user and the business needs in the shortest amount of time.

Benefits

Software quality

Time reduction

Change management