

Lean Software Development. Week 9

Giancarlo Succi, Artem Kruglov

Innopolis University

January 13, 2023

The Experience Factory

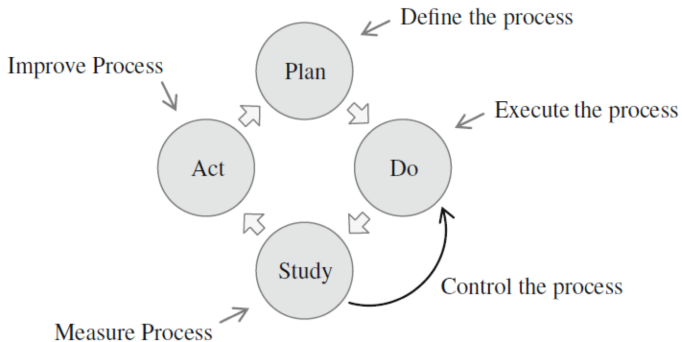
Warm up exercise

- Pair with a person who have not yet seat nearby in the course.
- In 5 minutes create a google doc where you list:
 - one situation each when you gained experience in a scholastic situation and
 - one situation each when you gained experience in a non-scholastic situation
- Share the google doc in Telegram
- Extract the common features
- Merge with another pair and in the newly formed group of 4 in 10 minutes:
 - find the common features in your gaining experience and
 - list the two most important aspects of gaining and sharing experience
 - list the two most difficult aspects in gaining and sharing experience

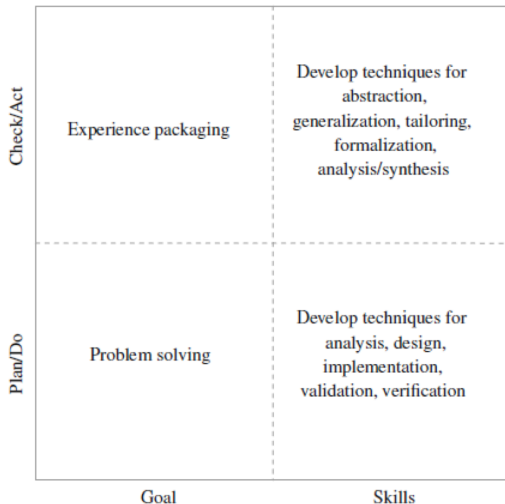
The Experience Factory

- The Experience Factory approach defines a framework to continuously improve the quality of the software development process. This is accomplished through the systematic collection, creation, and reuse of experience.
- Experience management can be considered a variant of knowledge management that manages data and information and transforms it into knowledge and wisdom to increase the understanding of the underlying principles of the analyzed phenomena.

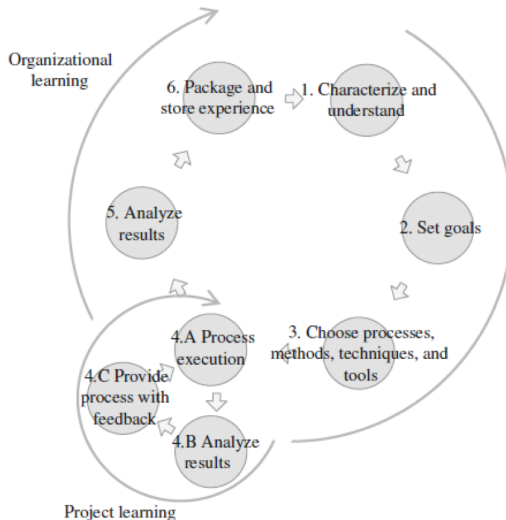
The Plan-Do-Study-Act cycle



Goals and skills in the Experience Factory



The Quality Improvement Paradigm cycle



The main cycle consists of the following six steps:

1. The characterize and understand

Analyzes the current project with respect to different characteristics to find a similar set of projects.

2. Set goals

Identifies the goals of the process execution. It formalizes all aspects that are important and therefore should be observed during the project development continued

3. Choose processes After settings the goals, the appropriate means to achieve them have to be selected

4. Execute

- Process execution
- Analyze results
- Provide process with feedback

5. Analyze results

6. Package and store experience The aim is to Package Experience so that it can be used for future projects. continued

The Quality Improvement Paradigm cycle

