CSE 115A - Introduction to Software Engineering

Elijah Hantman

Scrum + Engineering Practices is a paper by Williams, Brown, et al. published by IEEE in September 2011 for a conference.

The paper looks at several teams and details 'Flacid Scrum' which refers to teams which use SCRUM but eschew other essential development practices such as automation and testing.

The paper then examines four specific teams at Microsoft and the specific development practicies they used.

1. The teams used Planning Poker to come to collective estimates of difficulty and time required. The teams reported that it helped improve their confidence in their estimates being accurate and correct.

2. The teams used Continuous integration, which is a practice of automating tests into the build pipeline which allowed for teams to work faster and detect problems sooner.

3. Teams also attempted to practice Test Driven Development. Each team did something slightly different, but all attempted to write automatic unit tests either before or soon after writing code, and all teams saw the amount of their code tested rise up to nearly 90%.

4. Teams also used rigorous peer review. Senior developers would check the code and ensure that there weren't any stylistic errors or missed bugs.

In the end the authors conclude that Scrum has improved the quality of the software delivered, measured by the density of defects in the resulting software, as well as increasing the total amount of code produced.

Overall I think that the paper definitively shows that SCRUM can work, although they admit in their limitations that the results could be partially or largely due to other factors such as familiarity with the code base and possibly even just the nature of the projects themselves.