Comparing the Use of Agile Methodologies in the Classroom

TREO Talk Paper

James S. Gray
University of North Carolina – Wilmington
jsgray1021@icloud.com

Elizabeth White Baker
University of North Carolina – Wilmington
bakere@uncw.edu

Abstract

There is ample research on when Agile methodologies should and should not be implemented in software development team projects. This stream of research also extends into how to implement Agile methodologies (Abrahamsson et al., 2009; Yu and Petter, 2014) and which Agile practices work best within existing teams (Drury-Grogan, 2014; Vijayasarathy and Butler, 2016). Yet, research on information and resources on how to incorporate the practice of Agile training into the classroom or which Agile methodology is best suited for information systems development education are scarce (Kropp et al., 2016; Landry and McDaniel, 2016). Throughout a computer science or management information systems curriculum, Agile methodologies are referenced and taught frequently; however, students are seldom required to develop in Agile environments in the classroom as part of learning best development practices. This lack of practical application and exposure might be due to limited opportunities for students to meet outside of class hours in conjunction with possible departmental limitations. Yet, with the rapid adoption and proliferation of Agile methodologies throughout the software development industry, the absence of this practical experience and subsequent cursory knowledge puts students at a competitive disadvantage in the workplace.

This research compares the performance of two popular Agile methodologies by investigating how information systems students learn to develop software in teams using these methodologies within their curriculum. Both Meier et al (2016) and Kropp et al (2016) investigated the teaching of agile collaboration and values in student teams in the classroom, with each investigation demonstrating that incorporating agile methodologies into the software engineering education leads to positive student outcomes. This research investigates which Agile methodologies can be most effectively applied within the academic arena in order to give students the experience they need to be more successful in a professional workplace setting through applied learning based on employer desired skill sets.

References


