Agility in Context

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Abstract

Agile methods describe a set of interdependent development practices and techniques. Enthusiasts for Agile methods insist that all projects must follow every practice of their chosen method. Based on a Grounded Theory study involving 40 participants at 16 organizations, and corroborated by 4 independent case studies, we argue that development methods and practices must be adapted to fit their contexts, if projects are to succeed. Understanding Agility in context will help development teams, their managers, and Agile coaches to contextualize development processes to fit their projects' contexts.

Categories and Subject Descriptors K.6.1 [*Project and People Management*]: Management techniques; K.6.3 [*Software Management*]: Software development/process

General Terms software development, human factors, management

Keywords Agility, Context, Agile Software Development, Adaptation

1. Introduction

We value responding to the project context over following a by-the-book Agile method. While there is value in a by-the-book Agile method, we value responding to the project context more. Such is, we believe, the spirit of the Manifesto [**?**] when applied to Agile itself.

There exist Agile proponents who claim that any response to a project's context should be to change that context to better support a given Agile method. They claim that a project following an Agile method (such as, for example, Scrum) must adopt every practice, enacted precisely as described in the method's manuals, books and courses [**?**]. Failure to do so invites the observation by those proponents that the practitioners in question not Agile enough, "Scrum-butts" [**?**], and invited to measure "*the Ten Ways You are Not AGILE*" [**?**]. Practitioners are then encouraged to have the courage to try [**?**] and that the methods are always worth a try [**?**], although it is worth noting that courage still requires some minimum level of control over the contextual aspect under debate.

In contrast, an increasing number of practitioners and researchers support a more "contextualized" approach to Agile development, where Agile methods are adapted to suit their context of use [**? ? ?**]. Some practices within a prescribed method may be affected more by context than others, so the actual method followed may end up being a combination of classical Agile practices and a collection of personalised adapted practices. In a study of the Agile experts' opinion on tailoring Agile methods, the authors note that "*the very name agile suggests that the method should be easily adjusted to suit its environment*" and recommend that Agile methods should have built-in contingencies [**?**]. The authors acknowledge the dominance of practitioners in the field of Agile methods and call for researchers to contribute to the development, testing, and understanding of better Agile methods [**?**].

We have conducted a large-scale Grounded Theory study of Agile practices involving 40 Agile practitioners from 16 software development organizations in New Zealand (NZ) and India. Our other results are presented elsewhere [**? ? ? ? ?**]. In this paper, we present the results of the Grounded Theory study — corroborated by four independent case studies — that describes the relationship between Agile methods and the contexts in which they have been applied.

Our findings support a contextualized approach to Agile usage. Classical Agile methods work well for projects within some particular contexts: small; co-located teams; customers (product owners) who can make decisions on requirements;