Agile Methods in Thai Higher Education and Beyond

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Abstract

Our research focuses on an analysis of the perception and utilization of agile methods in Thailand and begins to examine the gap between education and industry in this field. To develop an understanding of how agile methods are incorporated into computer science curricula several leading Thai universities were visited. Further, detailed interviews were conducted with a selection of large software companies in order to identify the perception and success of agile techniques. This research has provided an insight into the level of preparation of Thai computer science graduates, specifically in the area of agile software development. Initial results from our empirical field research in Thailand are presented.

1. Research Methodology and Results

The academic institutions visited to date represent a range of educational establishments, from research-focused institutions to vocational schools. None of the universities visited had courses devoted to agile development techniques. Rather, these techniques were briefly mentioned in existing, traditional software development courses. Faculty members interviewed did, however, recognize the increasing interest in agile methodologies in the software industry and were seeking ways to expand this aspect of their programs.

Developers and managers from 10 leading software organizations in Thailand have been interviewed as part of this research. Most interviews were conducted on an individual basis, with a limited number being conducted in a small group setting. The interviews and observations revealed that several agile techniques were being utilized, even though few companies were formally following an agile process. Of the common agile techniques, pair programming was not used by any company, whereas collective code ownership and refactoring with used to a very limited degree. Conversely unit testing, operating at a sustainable pace, iterative development and acceptance testing were all widely used. These results indicate that agile methodologies are becoming heavily used in industry. In such circumstances, academia must be prepared to adapt its curricula to meet future demands.

2. Conclusion

The Thai government is confident that Thailand possesses the qualities necessary to excel as an Educational Hub for the Association of South East Asian Nations (ASEAN) region - nine of the nation’s higher education institutions have recently been given funding to assume a role of ASEAN centers for learning. As our research evolves we believe that the results can be utilized by the Thai government as they strategically strive to raise the level of higher education with respect to the demands of the modern software industry. We believe that we have development a solid foundation for our project. Although limited data has yet been gathered, it appears to show consistent results relating to the perception of and use of agile techniques. We anticipate gathering further data in Thailand, as well as conducting similar studies in Vietnam and China.