

Week Three Article Review for  
**Agile Methodology Adoption Decisions:  
An Innovative Approach to Teaching and Learning**  
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**Agile Methodology Adoption Decisions:  
An Innovative Approach to Teaching and Learning**

The journal article "*Agile Methodology Adoption Decisions: An Innovative Approach to Teaching and Learning*" was written by McAvoy & Sammon, D. and published by the Journal of Information Systems Education, Volume 16(4) in 2005. This research article provides new insights by highlighting "...an innovative approach to teaching and learning in studying the area of agile software development methods" (McAvoy & Sammon, 2005). Further, the research in this article provides observation and analysis of two Critical Adoption Factors workshops where one was undertaken in an academic context and the other was carried out in an industry context.

This research piece provides great substance and significant detail for anyone interested in pursuing the ideas presented in the article. The article highlights the four basic principles of agile methodologies, commonly called the 'Agile Manifesto.' Next, eleven critical adoption factors regarding adopting an agile methodology are overviewed and backed by additional research. Each of the eleven critical adoption factors is supported by at least one reference, and two to three references reinforce some factors. Next, these critical adoption factors are grouped into four classifications: project, team, customer, and organization. These four grouping classifications of critical adoption factors are overviewed sufficiently, and additional research authors and articles are cited. This journal article by McAvoy & Sammon (2005) is sufficient to cover the topic adequately as it thoroughly analyses two Critical Adoption Factors workshops, one in an academic context and the other in an industry context.

Implementing an Agile Methodology Decision is related to course readings; however, the article provides inaccuracies when describing the academic context. For instance, during phase one of the academic context, the article states, "Our pedagogical approach followed the cognitive

school of thought, as described by Ul-Haq et al. (2003), which is learner-centered, involving problem solving and discussion" (McAvoy & Sammon, 2005). This statement is true; however, it must be explained more precisely as a reader might make faulty assumptions. Cognitivism learning theory redirects the priority on learning from the environment (behaviorists) or the whole person (humanists) to the learner's mental processes (Merriam & Bierema 2014, 31). Cognitivism learning theory attempts to help learners maximize the brain's potential by focusing on cognitive processes (Ertmer & Newby, 2013). Therefore, the processes described in the above quote are at the cognitive level, not the physical level.

Additional learning theories are introduced into the research setting during the academic context description. For instance, "'Phase One' of this research study was conducted in a two-hour 'workshop' style environment, with a class of twenty-four students, divided into four groups" (McAvoy & Sammon, 2005, p. 413). A learning setting with groups of students working together is characteristic of Social Cognitive Theory. As stated by Merriam & Bierema (2014), "Social cognitive learning theory highlights the idea that much human learning occurs in a social environment. By observing others, people acquire knowledge, rules, skills, strategies, beliefs, and attitudes (p. 31). The journal article by McAvoy & Sammon (2005) then overviews another learning theory they implemented during research with the comment, "This aligns somewhat with...a description of psychological constructivism..." (McAvoy & Sammon, 2005, p. 413). As noted in the article by Ertmer & Newby (2013), the learning theories of Behaviorism, Cognitivism, and Constructivism have unique definitions that affect instructional design in distinctive ways and are defined by specific teaching techniques.

The fact that McAvoy & Sammon employed multiple learning theories during their research is not as problematic as their descriptions of learner settings are inaccurately linked to

specific learning theories, which are further described using inaccurate or insufficient instructional techniques. Also, this pervasive confusion with learning theory terminology, learner activities, and instructional strategies was prevalent throughout the article, which detracted from the article's purpose and research findings.

## References

- Ertmer, Peggy A., and Timothy J. Newby. 2013. "Behaviorism, Cognitivism, Constructivism: Comparing Critical Features from an Instructional Design Perspective." *Performance Improvement Quarterly* 26 (2): 43–71. doi:10.1002/piq.21143.
- McAvoy, J., & Sammon, D. (2005). Agile Methodology Adoption Decisions: An Innovative Approach to Teaching and Learning. *Journal of Information Systems Education*, 16(4), 409–420.
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