CoPhS Nordic Conference on PhD Supervision

Muhammad Ovais Ahmad Karlstad University

Support and Organize Doctoral Studies with ScrumBan

Doctoral research is an iterative and knowledgeintensive journey that necessitates continuous adaptation and goal refinement. This poster explores how ScrumBan, a methodology combining Scrum agility with Kanban workflow visualization, that can empower doctoral students and supervisors. ScrumBan emphasizes adaptability, knowledge sharing, and timely value delivery (Ladas, 2009; Kniberg, & Skarin, 2010; Saltz et al. 2018; Ahmad et al. 2018) - all crucial aspects of successful doctoral studies journey. Scrum is a lightweight framework that helps people, teams and organizations generate value through adaptive solutions for complex problems (Sutherland, & Schwaber. 2013). Scrum has three main pillars (i.e. transparency, inspection, and adaptation) and five values (i.e. commitment, focus, openness, respect, and courage). "Kanban (capital K) is an evolutionary change method that utilizes a kanban (small k) pull system, visualization, and other tools to catalyse the introduction of Lean ideas... the process is evolutionary and incremental" (Anderson, 2010). Kanban have five principles visualise workflow, limit work in progress, measure and manage flow, make process policies explicit (Ahmad et al. 2018). It is not uncommon for the initial research plan and goals to be revised and redefined as students progress with their studies. Students can leverage ScrumBan practices to manage their research, continuously improve, and achieve research goals. The Kanban board provides a visual representation of research progress, fostering communication between students and supervisors (Saltz et al., 2018). Drawing on my experience as a doctoral student and supervisor, this poster presents a practical framework for adopting ScrumBan within the context of doctoral research.

References:

Ahmad, M. O., Dennehy, D., Conboy, K., & Oivo, M. (2018). Kanban in software engineering: A systematic mapping study. Journal of Systems and Software, 137, 96-113.

Ahmad, M. O., Liukkunen, K., & Markkula, J. (2014). Student perceptions and attitudes towards the software factory as a learning environment. In 2014 IEEE Global Engineering Education Conference (EDUCON) (pp. 422-428). IEEE.

Anderson, D. J. (2010). Kanban: successful evolutionary change for your technology business. Blue Hole Press.

Kniberg, H., & Skarin, M. (2010). Kanban and Scrum-making the most of both. Lulu. com.

Ladas, C. (2009). Scrumban-essays on kanban systems for lean software development. Lulu. com.

Saltz, Jeffrey S., and Robert R. Heckman. A scalable methodology to guide student teams executing computing projects. ACM Transactions on Computing Education (TOCE) 18.2 (2018): 1-19.

Sutherland, J., & Schwaber, K. (2013). The scrum guide. The definitive guide to scrum: The rules of the game. Scrum. org, 268, 19.