

An Initial Usability Testing for Improving Acceptance Criteria in A Scrum Project: An Angkasa LMS case study

Dana S. Kusumo*, Nungki Selviandro*, Kusuma Ayu Laksitowening*, Veronikha Effendy*,
Monterico Adrian*

**School of Computing, Telkom University, Jl. Telekomunikasi no: 1, Bandung, Indonesia*

*danakusumo@telkomuniversity.ac.id, nselviandro@telkomuniversity.ac.id, ayu@telkomuniversity.ac.id,
veffendy@telkomuniversity.ac.id, monterico@telkomuniversity.ac.id*

(P19)Abstract—A sprint backlog is a placeholder for user requirements written as user stories and acceptance criteria for user stories. However, there is no standard technique used to involve users in validating the requirements at the beginning of the sprint. In this research, we conducted usability testing, involving seven participants, for three given tasks before a sprint planning in the development of Angkasa Learning Management System (LMS), a pay-as-you-go LMS on top of a cloud service. In the sprint review, five participants were asked for feedback and selected the best sprint increments between the sprint A dan sprint B. For this research, both sprints were identical which the sprint B had the same user stories, but the sprint B was tested using usability testing. The results show that the user acceptances in the sprint review were increased and user requirements in the user stories were validated by the users. This research contributes to the studies of user experience practices in the Agile-based projects to increase acceptance of software products.

(P19)Keyword— Scrum, sprint backlog, acceptance criteria, usability testing



Dana Sulistiyo Kusumo received BEng in Informatics from the Telkom University, Indonesia, MEng in Information Technology from Bandung Institute of Technology, Indonesia and a Ph.D. degree in Computer Science and Engineering from the School of Computer Science and Engineering, The University of New South Wales, Australia. Currently, he is a lecturer at the School of Computing, Telkom University, Indonesia. He is also a member of the Software Engineering Research Group at the School of Computing, Telkom University, Indonesia. His research interests include Software Engineering and Information Architecture.



Nungki Selviandro received both BSc and MSc degrees in Computer Science from the University of Indonesia, Indonesia, and a Ph.D. degree in Computer Science from the Department of Computer Science, The University of York, UK. Currently, he is a lecturer at the School of Computing, Telkom University, Indonesia. He is also a member of the Software Engineering Research Group at the School of Computing, Telkom University, Indonesia. His research interests include Software Engineering, Model-Driven Software Engineering, Assurance Cases, and XAI.



Kusuma Ayu Laksitowening received her bachelor's degree in Informatics from Telkom University, Master's degree in Information Technology from Bandung Institute of Technology, and Ph.D. degree in Computer Science from Universitas Indonesia. Currently, she is a lecturer and head of the Software Engineering Research Group at the School of Computing, Telkom University, Indonesia. Her research interests include Software Engineering, Personalized Learning, and Learning Analytics.



Veronikha Effendy received her bachelor's degree in Informatics Engineering from Telkom Institute of Technology (STTTelkom) in 2003, and Master's Degree in Informatics from Telkom University, Bandung, Indonesia, in 2013. She has worked in IT industry for 8 years, and now she is a lecturer and researcher in School of Computing Telkom University. She is also a member of the Software Engineering Research Group at the School of Computing, Telkom University, Indonesia. Her current research interests include Human Computer Interaction, Software Engineering and Data mining.



Monterico Adrian is a Research Associate at School of Computing, Telkom University, Indonesia. He received his master and bachelor degree in Informatics Engineering from Institut Teknologi Bandung, Indonesia. His current research interests are software engineering, database, programming, and mobile technologies. He is also a software developer and IT consultant.