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Title	知識創造を指向したProject Based Learningの構築 －ITソリューション企業A社における試行と組織的知識創造理論視点からの効果検証－
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Abstract

Purpose – The purpose of this study is to propose a model of a workshop aimed at human resource development for co-creation and to evaluate the effectiveness of the workshop from the viewpoint of organizational knowledge creation theory (mainly SECI process). We aim to provide clues to solving important management issues such as improving the ability to create and utilize knowledge and developing human resources who can actively engage in IT business.

Background – In these days, we can see an increasing number of examples of new business alliances in which business units and ICT solution companies of client companies work together across organizations to rapidly develop IT services using the Agile Development Methodology with Scrum. The purpose of this transformation is that enable to create new IT services for market users rapidly. This shift can seem like a change toward achieving sustained competitive advantage through rapid knowledge creation. From the perspective of the organizational knowledge creation theory, scrum can be regarded as a team activity model to promote knowledge creation in their activity. Scram is originated from the research of innovation by Nonaka and Takeuchi (Takeuchi & Nonaka, 1986). Also, Nonaka et al. and Sutherland, J et al. have pointed out that Scrum accelerates the knowledge creation process (Nonaka & Konno, 2012, p. 58; Sutherland et al., 1999, p. 9). However, although Scrum is based on the Organizational Knowledge Creation Theory, we can find few evidence-based experimental studies which was conducted based on a theoretical view: The Organizational Knowledge Creation Theory perspective.

Design/methodology/approach – we propose a new learning concept based on organizational knowledge creation theory, and we built a new PBL model (Scrum Based Learning: SBL) based on Scrum. We conducted several trials at IT solution company A. We conducted trials of SBL in a controlled environment as a fee-based in-house training program with free application. We evaluated the educational impacts of this workshop model using the "SECI survey" (Nonaka, Konno, and Hirose, 2014) in the before-after workshop. We have confirmed the increased activity level of the knowledge creation process (SECI model) in participants. Next, we assessed the statistically significant difference using Wilcoxon signed rank test and estimated the effect-sizes: *r*. we confirmed the participants' behavior transformation and mindsets changes.

Findings – The result showed an increase in the activity level of some phases in SECI on participants, and the participants' behavior and mindsets have changed. Finally, we got a new suggestion that our new workshop model activates participants for the new knowledge creation.

Originality/value/contribution – The results of this study not only show the possibility of the new application of Scrum but also suggest the critical possibility for a new development of the systematic knowledge creation theory of learning to create knowledge.

Keywords: Education program for Innovations, Employee Training, Human Resource Development, Scrum, Knowledge Creation, SECI model, Project Based Learning (PBL)