

# A Theoretical Framework for a Dynamic Team Learning and Adaptation System

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**Abstract**— This paper will discuss a model for team learning and adaptation by applying sociotechnical and cognitive systems concepts to a model previously developed by [1] to facilitate double-loop learning in teams and organizations. Organizational knowledge assets will be explained relative to team learning followed by an explanation of the sociotechnical system that the model is based upon. An overview of the team cognitive systems model will be provided as a precursor to explaining the learning and adaptation system. The team learning and adaptation model combines sociotechnical and cognitive systems elements to provide a model explaining how team learning at the tactical level can be aligned with other organizational resources while aligning these efforts towards organizational strategy. The proposed model also provides a holistic means for implementing a problem-solving methodology within the sociotechnical and cognitive systems contexts.

The aim of this paper is to aid practitioners seeking to improve how his or her team learns, collaborates, and innovates at all levels of the organization. The paper is geared mainly towards practitioners interested in improving his or her team's performance. Academics interested in team learning and knowledge sharing may also find the model of interest in academic pursuits related to team learning and adaptation. Practitioners can use this model to identify shortcomings in team learning and adaptation performance relative to specific work requirements. Academicians can use the model to explain sociotechnical and environmental interactions relative to how teams perform learning and adapting behaviors.

**Index Terms**—Team learning, team adaptation, team creativity, team cognition, organizational learning.