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SP - (15707) - ANALYZING AN INTERDISCIPLINARY TEAM'S INTERACTIONS THROUGH AN ACTIVITY THEORY LENS

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Short Abstract

Interdisciplinary collaborations between different academic disciplines can create knowledge and solutions to challenges that are beyond the scope of what a single discipline can achieve on its own. However, research is unclear on how interdisciplinary teams of faculty and graduate students function as a whole and the processes that guide them as they work on collaborative tasks. Using Cultural-Historical Activity Theory, this study examined a team of Science Education researchers and Science/Engineering graduate students as they co-developed high school science lessons as part of a grant-funded project. Team meeting transcripts were qualitatively analyzed to characterize the components of the team's activity system and identify contradictions, or indicators of potential change or growth within their system. Findings reveal a shared object, community, and outcomes for the team members. Contradictions existed in their tools, rules, and division of labor; the Science Education researchers set and enforced rules and were more cognizant of curriculum and pedagogical concerns; the Science/Engineering graduate students followed the team's rules and demonstrated ownership over developing and testing the lab activities. This study provides recommendations for maximizing the potential of interdisciplinary teams by capitalizing on strengths and knowledge that members bring to collaborative projects.