A Digital Clipboard for Real-Time Observations and Multimodal Annotations of Team Performance

Authors: Jason Phadnis, Daniel Keefe, Cullen Jackson

Summary:

Performance evaluations, both for an individual and for teams, can be conducted with survey-based observational tools. These observational tools could be on paper and clipboard or on a tablet or computer. In either case, they aren't necessarily able to provide the context and evidence needed to transform otherwise vague feedback into clear, helpful feedback. We contribute a new design for a tablet-based digital clipboard application to address this problem. Our implementation supports the same style of handheld, pen-based annotation as traditional clipboards, while adding new capabilities like capturing and embedding video annotations in digitized versions of standard observational tools. Observers enter observations and annotations in real-time using a creative combination of pen, touch, and spatial gestures of the clipboard itself that is designed to be efficient and, as much as possible, enable observers to maintain visual focus on the team they are evaluating. Early results include observations recorded during lab-based, iterative design testing for teams of students working together to build a structure out of blocks.

ACM Author Affiliations: Jason Phadnis: University of Minnesota Twin Cities; Daniel F. Keefe: University of Minnesota; Cullen D. Jackson: Beth Israel Deaconess Medical Center