

TITLE:

What we learned at Colorado State University using learning management system usage data that can be used to help students improve engagement practices

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ABSTRACT: 300 word limit (when applicable, please include: purpose & background, methods, results, conclusions/discussion)

Formative assessments promote learning by providing timely and ongoing information about student learning to both instructors & students allowing students to engage in spaced & active retrieval. Data compiled at CSU demonstrate the importance of instructors understanding of how students engage with formative assessments. However, when students work in electronic environments informal monitoring by an instructor is usually not possible, leaving only instructor intuition regarding students' engagement. In this session participants will be introduced to data compiled at CSU, explore the uses and potential pitfalls of this data & ways this data can be used to maximize students use of spaced and & active retrieval in online assessments. Participants will be given an introduction to spaced & active retrieval & the ability to use LMS data to analyze student use patterns of online formative assessments. At CSU data was compiled about student usage patterns looking for correlations to student exam performance. This analysis was done using data extracted from the LMS and analyzed by a graduate student in education skilled at analyzing very large data sets. We found that how students used the online quizzes was correlated to performance, with students who used spaced retrieval performing better on mid term and final examinations than students who massed their use of online quizzes right before the due date, despite both groups of student performing similarly on the online assessments.