Electronic Posters to Support Formative Assessment

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What is Formative Assessment?

“….all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged.”
-Black & Wiliam 1998

“How can we reduce teacher workload when using Formative Assessment in real-world classrooms?”

Classroom Challenges

Popular formative assessment lessons designed by the Mathematics Assessment Project for middle school classrooms

• Freely available at http://map.mathshell.org/
• Consist of 3 stages:
  • Individual pre-assessment
  • Collaborative small group-based main activity
  • Individual post-assessment

• Promote good practices that correlate with long term learning gains
  • Collaborative learning, discussion and reflection
  • Emphasis on rich problem solving tasks
  • Formative feedback, followed by re-engagement with tasks

• Can be broadly categorized into
  • Card arrangement activities
  • Handwriting-intensive activities

The FACT System

Distributed system that uses electronic posters to implement formative assessment lessons based on Classroom Challenges

• The Student UI:
  • Large workspace with pen and touch capability to enable electronic poster with editable cards.
  • Shared collaborative workspace metaphor for main lesson activities.
  • Students can work individually on pre- and post-assessment tasks.

• The Teacher UI:
  • Quickly hand out and collect student posters.
  • Manage student attention by using ‘Pause’ capability.
  • Manage groups of students for collaboration and sharing posters.
  • Provide comments and feedback in real-time by ‘peeking’ at student posters

• FACT includes an analysis engine that can alert teachers to errors in student work and tag the most relevant student/group to interact with

References