Playing with history; an analysis of interactive learning through a museum exhibit

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Introduction
This research is part of a collaborative project between the University of Minnesota, Minnesota Historical Society, University of Wisconsin – Madison, and ARIS Games that aims to determine whether students perform behaviors that are indicative of learning about history. The current study is using behavioral data that was collected during the Play the Past exhibit at the Minnesota History Center in St. Paul, MN.

The Play the Past exhibit is a guided field trip where students are encouraged to explore Minnesota history through games and activities.

Methods
The application used by students during Play the Past on an iPod Touch collected behavioral data by logging each interaction the student made with the exhibit, while completing the activities.

• 4, 439 4th, 5th, and 6th grade students
• 95 elementary schools

Analysis
As the student progresses through levels in each area, they are first introduced to historical content, then they are required to manipulate artifacts to complete levels.

Completion trajectory and frequency were computed and are displayed to the right.

Research Question
At what rate are students completing the Iron Range, Fur Trade, and Sod House activities?

Conclusions
Students complete the second level of an activity at a rate of about 40%. The second level is crucial to developing a strong understanding of the content in the exhibit, since students must manipulate the artifacts to complete the activity.

Next Step
We plan to analyze the behavior of students to determine whether they are using information gathered from level 1 to complete the second level. This behavioral analysis will provide evidence that students are learning through interaction with the exhibit activities.

Partners
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