



ANCHORED LEARNING

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Anchored Learning

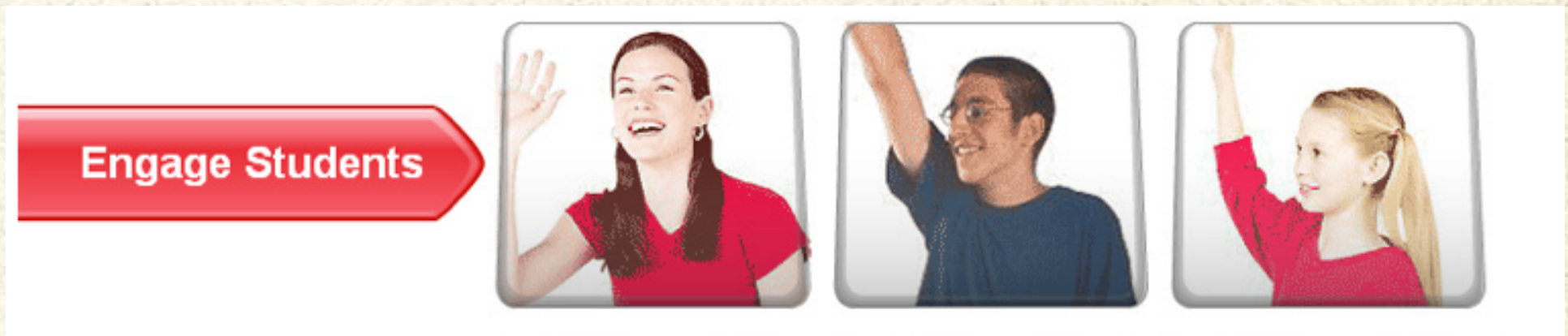
Abstract

Advances in computer technology and multi-media systems have led to widespread interest in computer-based instruction and learning environments. The use of video, animation, graphics, and simulation allow the presentation of material in realistic contexts, thus addressing the problems of inert knowledge while promoting constructive and generative learning. But the true potential and benefits of these systems are yet to be realized. Cognitive studies on learning and transfer suggest that concepts acquired in a single context often remain coupled to that context, and are not readily transferred and accessed in other problem solving situations. These findings point to the limitations of traditional, single-context, computer-based instructional environments. This paper introduces an emerging architecture for instruction and learning, Anchored Interactive Learning Environments (AILE). AILE extend well-developed theories of educational practice into the domain of interactive computer assisted instruction. The resulting computer-based environments facilitate sustained learning by active learners. The design and implementation of AdventurePlayer, an Interactive Learning Environment (ILE) anchored in the *Rescue at Boone's Meadow* (RBM) episode from the *Adventures of Jasper* series is presented. An experimental study demonstrates the effectiveness of this system in the trip planning domain.

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Anchored Learning: Definition

- An attempt to help students **become more actively engaged in learning** by **situating or anchoring** instruction around an interesting topic.



- The learning environments are designed to provoke the kinds of thoughtful engagement that helps students **develop effective thinking skills** and **attitudes that contribute to effective problem solving** and **critical thinking**.

Principles of anchored instruction

- Learning and teaching activities should be designed around an **"anchor": a story, adventure, or situation** that includes a **problem or issue**.
- Instructional materials should include **rich resources** students can explore as they **try to decide how to solve a problem**.
- **Digital Story Telling** is used in the lesson.
- Search on the Internet.
- Challenging.



I CAN'T
STOP
THINKING!!



Anchored Learning: Lesson

Anchored instruction emphasizes the need to provide students with opportunities **to think about and work on problems**, which is an emphasis of **cognitive constructivists**. Anchored instruction also emphasizes **group or collaborative problem solving**, which is an emphasis of **social constructivists**.

- Guessing the end of the story.
- Division into parts.
- Challenging.
- Solve the problem.
- Group discussion and brainstorming.

