Alien Rescue: Designing for Student-Centered Learning

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RUNNING HEAD: The Design of *Alien Rescue*

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Abstract

Alien Rescue is a hypermedia based program designed to engage middle school students in solving a complex problem that requires them to learn about both our solar system and the tools and procedures scientists use to study it. Its science fiction premise takes students to a newly operational international space station where they become a part of a worldwide effort to rescue six alien species fleeing their dying solar system. *Alien Rescue* employs a problem-based learning (PBL) approach, where instruction begins with a complex problem and learning is driven by students' efforts to develop a solution. Work on the project began at the University of Texas at Austin in 1997. Because we were faculty and graduate students in an instructional technology program, our goals differed from designers in industry. For us, marketability was irrelevant, and was in fact a topic we never discussed until we realized just how positive the reaction to the program was. Instead, our goal was to create a product informed by emerging understandings of how people learn as a learning experience for ourselves. We were particularly interested in finding out how technological tools could be used to enhance learning. For the three authors, our own learning focused on developing a research tool to test our understanding. For others, their learning focused on a range of topics, including interface design, instructional design, graphic art, and various high-end software applications. So our process was driven not only by a desire to create an educationally sound *product* for the target audience, but to engage in a *process* that was educationally valuable for us. In this paper, we reflect and share our experience in the design and development of Alien Rescue.