

FOSTERING INNOVATION AND CREATIVITY



With a philosophy firmly rooted in the belief that innovation and creativity are essential in all disciplines and knowledge-oriented societies, in 2010, PREL continued to explore these concepts in relation to their place in both formal and informal educational contexts.

In 2009, PREL initiated *E Ho'omau!*, a curriculum development project funded under the Native Hawaiian Education Program of the U.S. Department of Education. Through *E Ho'omau!*, PREL is creating three high-quality animated versions of traditional Hawaiian legends designed to be engaging and culturally appropriate. These are complemented by standards-based print materials

and teacher training activities that strengthen language arts and science achievement for Native Hawaiian 4th graders. *E Ho'omau!* addresses the need to improve the literacy skills of students of Hawaiian ancestry. The curriculum aims to do so by integrating evidence-based educational approaches with a visually rich learning system based on Hawaiian legends. The goal is

E Ho'omau!

*E Ho'omau!** has mainly focused on producing curriculum materials: three animated featurettes based on culturally important Hawaiian legends, three accompanying graphic novels, and nine nonfiction booklets.

We have completed the first set in 2010, based on the story *Why Māui Snared the Sun*. In this story, the demigod Māui, as a young man, wants to help his mother, who finds that the sun is hurrying across the sky, making the days too short for her to dry her kapa cloth. Summoning all his courage, Māui confronts and snares the sun, convincing it to slow down and extend the hours of daylight. Production of the animated featurette included script writing, storyboard development, audio casting and recording, character and background art, and final animation.

To accompany the featurette, the following have also been completed: a graphic novel featuring key vocabulary words and three nonfiction booklets containing 4th grade standards-based science content.

Two other stories will be completed in 2011: *The Menehune and the Birds* and *Pele Searches for a Home*. Meanwhile, PREL project evaluators will also begin assessing the quality and utility of the materials and teacher training, as well as student outcomes based on relevant Hawai'i state standards.

**E Ho'omau* is the imperative form of the Hawaiian verb meaning to preserve, to persist. The expression urges us to learn from the past and perpetuate the good.

to elevate student motivation and enhance self-confidence while providing meaningful learning opportunities.

To foster creativity and increase student engagement in both English language arts and the sciences, PREL staff expanded *Picturing Science* instruction into both formal



and informal education settings. *Picturing Science* combines scientific inquiry with language and visual literacy strategies to enhance environmental literacy. Integrating science, photography, drawing, painting, and writing, it creates a showcase of student work. The goals are for students to examine their

environment from new perspectives and to engage creatively with scientific process and content. Such use of language and visual literacy strategies has been successful in enhancing instruction in chemistry and physics courses (Schonborn & Anderson, 2006; Bopagedera, 2005; Campbell, 2004) and in connecting with informal audiences about biology (Jacobson et al., 2007).

PREL, in collaboration with Mentor Interactive, recently released *Cosmos Chaos!*[™], an educational game for the Nintendo DS console that targets vocabulary learning in science, social studies, and mathematics. Resulting from a U.S. Department of Education grant focused on the development, delivery, and evaluation of a supplemental vocabulary instructional game for the Nintendo DS, this digital game-based vocabulary enrichment program is designed to improve 4th grade struggling readers' word knowledge and use of word learning strategies for reading comprehension. Instructional content and an engaging virtual experience combine in *Cosmos Chaos!*[™] to create an innovative educational game. *Cosmos Chaos!*[™] strives to move beyond the electronic

version of school; instead, it creates an environment where the player goes on a mission to save a pet dog, Hugo, and stop a takeover of the galaxy. As the player engages in this quest, he or she interacts with words and learning strategies. The role-playing game (RPG), adventure hybrid embeds strong learning principles and educational goals in the areas of fantasy, rules/goals, sensory stimuli, challenge, mystery, and control, and its instructional design not only enhances, but promotes, players' learning processes.

We understand that creativity does not arise from the standardization of education, which seems to perpetuate the status quo, but from gathering together people with a variety of perspectives and understandings. In partnering with education stakeholders, PREL shares the commitment in improving the educational contexts in which we learn and work. By thinking and talking with our partners, friends, and neighbors, we continue to envision and enact new possibilities for fostering innovation and creativity, in both formal and informal settings.

