

Workshop

Segues to science

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Introduction. The Ethnobotany Segues to Science project is based upon two simple observations: 1) Many nonscience majors at the University of Hawai'i (UH) are attracted to courses in ethnobotany because they are seen as being interesting or culturally relevant. 2) Students become interested in science because of what they learn in ethnobotany and transfer into science majors and careers. We therefore are proposing to improve the quality of the STEM content of the ethnobotany courses and to develop natural transition points or segues from ethnobotany into other sciences to assist student transitions.

Objectives. Linking education to the surrounding cultural and physical environment produces positive results on student and school performance (Stephens 2000). We are exploiting this linkage, particular as a means to increase the participation of under-represented cultural groups in a rigorous science curriculum. Our primary impact will be the development of an academic track that attracts a new cadre of students, educates them in ways that are focused on sound scientific understanding and practice, and which fosters an interest in extending learning in the sciences.

Methods. Upgrading of the science content of the ethnobotany courses will be done through development of specific conceptual modules (called STEM segue modules) that will accomplish two tasks at the same time. First, each module will be built around a learning situation (Lave & Wenger 1990, McLellan 1995) that teaches and assesses learning about a specific kind of scientific tool or concept and its applications in understanding human interactions with plants. Second, each module will provide a set of clear segue discussions or cameos that will teach students about careers in science that use the kinds of lessons learned in the module. The STEM segue modules will entice students to consider careers in science within ethnobotany and other sciences because students will be learning universally important scientific strategies and knowledge.

Results. Examples will be shown to illustrate the concept.