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The Far-reaching Benefits and Structure of a Future Faculty Teacher Training Program

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Two common shortfalls in undergraduate biological education are the absence of formal training of future biology professors in teaching methods and the lack of incorporation of active learning components in content-rich large enrollment biology lecture courses. Both issues can be addressed through a graduate student teacher training program, such as the New Mexico State University / Howard Hughes Medical Institute Scientific Teaching Program. This program was designed to train graduate and postdoctoral students in scientific teaching methods suitable for use in undergraduate biology courses. The program pairs student teachers with faculty teaching mentors to team-teach an undergraduate course. Teaching fellows benefit from the opportunity to design and implement lecture materials and activities and teaching mentors benefit from sharing the teaching load and are introduced to the scientific teaching method. This program provides a two-way exchange of ideas and experience and the collaborative teaching efforts promote innovative incorporation of teaching methods into existing course frameworks. Programs such as the Scientific Teaching Fellowship can be an effective way of 1) training graduate students and preparing them for future teaching at the undergraduate level, 2) revising courses through collaborative effort, and 3) incorporating current pedagogical techniques into lecture classes to promote learning. This presentation summarizes the Scientific Teaching Program at NMSU and details experiences of a Scientific Teaching Fellow in the classroom. An inquiry-based activity developed within this program will be presented and time will be allotted for discussion of similar programs.

Mission, Review Process & Disclaimer

The Association for Biology Laboratory Education (ABLE) was founded in 1979 to promote information exchange among university and college educators actively concerned with biology learning and teaching in a laboratory setting. The focus of ABLE is to improve the undergraduate biology laboratory experience by promoting the development and dissemination of interesting, innovative, and reliable laboratory exercises. For more information about ABLE, please visit **http://www.ableweb.org/**

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