

The Role of Biologists in Science Education of Elementary and Middle School Teachers

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This mini-workshop was a roundtable discussion of a wide range of issues and resources in developing and improving courses directed at the science education of prospective and in-service elementary and middle school teachers. Faculty working with these students expressed a great need for emphasis on teaching scientific process rather than content, and that the faculty model for these new teachers the pedagogical approaches that attract and inspire our students. It was generally agreed that use of lecture formats that encourage a dialogue between students and faculty, investigative, hands-on, lab exercises, and collaborative and/or cooperative learning approaches were most needed in today's classrooms. The era of fact-laden lectures and recipe-driven laboratories needs to be brought to an end.

There is a serious need for a compilation of resources (course syllabi, lab manuals, discussion papers, sources of supplies and equipment, etc.) used by ABLE members and other college and university faculty. This listing of resources could be made available to interested faculty teaching credential candidate students university-level science courses. It was suggested that this perhaps could be done under the auspices of ABLE with a core group of members organizing the information and establishing a means (list-servers; e-mail; world-wide-web home page???) to make it broadly available.

A number of faculty around the continent already provide significant resources (time, energy, equipment, supplies, student interns, etc.) to their local K-12 teachers. These often imaginative and potentially far-reaching efforts are known only by a few colleagues. In addition, there are still many perceived barriers to interactions between faculty and K-12 teachers. Reluctance to overcome these barriers to cooperation and mutual support have been a major stumbling block to supportive liaisons between college/university faculty and teachers. A major advance would be greater efforts to break down these barriers.

There was general support for a suggestion made that the annual meeting of ABLE should routinely include a specific set-aside time for an extended workshop on these issues.