Preparing Graduate Students to Teach Introductory Biology as Inquiry: The Use of Inquiry Caselets to Solve Teaching Dilemmas

Kristen Miller

The University of Georgia, Division of Biological Sciences, 1000 Cedar St, Rm 402, Athens GA 30602 USA (krmiller@uga.edu)

Current calls for science education teaching reform at the higher education level promote the use of inquiry-based science experiences in the classroom in order to achieve greater science literacy and a stronger understanding of basic concepts and processes of the nature of science (NSES, NRC, 1996). Problems faced by those who wish to implement this reform, however, lie in the lack of teaching preparation and professional development materials available, especially those which are pedagogically-specific and geared toward college-level science instruction (Tanner & Allen, 2006). In K-12 education, case discussions are an effective professional learning strategy in any discipline; they provide reflection-on-action experiences that help develop awareness of active practitioners. This mini-workshop will present the development and use of caselets, an abbreviated form of case discussions, with college-level biology laboratory instructors. Caselets introduce teaching dilemmas that typically occur when teaching science as inquiry in laboratory environments; their abbreviated form allows them to be part of the limited instructional preparation time often given to these teachers. Mini-workshop time will be spent reviewing sample caselets, discussing benefits of their use in laboratory environments, discussing teaching dilemmas common to teaching science as inquiry in laboratory settings, and brainstorming additional caselet topics.

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/

Papers published in Tested Studies for Laboratory Teaching: Proceedings of the Conference of the Association for Biology Laboratory Education are evaluated and selected by a committee prior to presentation at the conference, peer-reviewed by participants at the conference, and edited by members of the ABLE Editorial Board.

Citing This Article


http://www.ableweb.org/volumes/vol-33/?art=30

Compilation © 2012 by the Association for Biology Laboratory Education, ISBN 1-890444-15-4. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the copyright owner.

ABLE strongly encourages individuals to use the exercises in this proceedings volume in their teaching program. If this exercise is used solely at one’s own institution with no intent for profit, it is excluded from the preceding copyright restriction, unless otherwise noted on the copyright notice of the individual chapter in this volume. Proper credit to this publication must be included in your laboratory outline for each use; a sample citation is given above.