

Preface

Welcome to the Proceedings of the Fourth Workshop/Conference of the Association for Biology Laboratory Education, which was held at the University of Washington during the week of June 21–25, 1982. Whether you are already familiar with the reliable experiments described in the first three volumes of this series, or have been attracted for the first time by the title “*Tested Studies in Laboratory Teaching*”, it is probable that you have defected from the ranks of laboratory teachers who are content to repeat the same tired experiments even if they don’t work as they are supposed to. Perhaps you do not wish to be the type of teacher who talks about the integrity of science and the consistency of natural phenomena, but who makes lame excuses when teaching experiments do not turn out as “the book” says and expects students to write them up as if they did. Or perhaps you wish to avoid being the type of scientist who lectures enthusiastically about the joys of exploring the unknown in living systems, but who has nothing more exciting to demonstrate the joys of research than experiments from published laboratory manuals that were copied from older lab manuals, that were copied from still older lab manuals, with who knows how many random mutations introduced into each new generation. Are you concerned that your students find all manner of excuses for avoiding your laboratories? Do you doubt that they would take your course if a laboratory science were not required of them? Have you become so depressed because the laboratory is dragging down the rest of your course that you are tempted to drop the lab? If so, A.B.L.E. and this volume are especially for you.

As always the Program Committee of A.B.L.E. selected for presentation at Seattle experiments which have been tested where it counts—in the teaching laboratory. During the presentation at the Workshop the exercises came under further scrutiny by professionals who were standing in the place of students, and who offered valuable criticisms and suggestions for improvement. Finally, it has been my task to make the experiments clear to you, who do not have the benefit of a demonstration. Each of the following chapters has therefore been through a rigorous process of selection in its evolution to an exercise that you can confidently adapt to your own needs.

This is not to say that these exercises are merely routines to be carried out in robot fashion. Many of us associated with A.B.L.E. have observed from the very beginning a feeling of cooperation and shared enthusiasm that permeates the Workshop/Conferences, and which contrasts with the competition and struggle for recognition to be found in so much of the rest of science.

Happily, the A.B.L.E. spirit flows through these Proceedings. Often in these pages the authors' enthusiasm for research, for teaching, and for their organisms will be apparent. Even though the authors give precise and detailed instructions for the main experiments, they often encourage you to explore new experiments on your own, as if they did not want to spoil the fun for you. All of us want you to feel the same excitement that we do about the experiments and about biology teaching, and we hope that the excitement will be transmitted through you to your students.

Plattsburgh, New York

C. Leon Harris