

0164a-1

Michaelsen, Larry K.

Team-based Learning: a Transformative Use of Small Groups

Library of Congress Cataloging-in-Publication Data

Team-based learning : a transformative use of small groups / edited by Larry K. Michaelsen, Arletta Bauman Knight, and L. Dee Fink.

p. cm.

Includes bibliographical references (p.) and index.

ISBN 0-89789-863-X (alk. paper)

1. Group work in education. 2. Team learning approach in education. I. Michaelsen, Larry K., 1943- II. Knight, Arletta Bauman. III. Fink, L. Dee, 1940-
LB1032.T38 2002
371.39'5—dc21 2002038103

British Library Cataloguing in Publication Data is available.

Copyright © 2002 by Larry K. Michaelsen, Arletta Bauman Knight, and L. Dee Fink

All rights reserved. No portion of this book may be reproduced, by any process or technique, without the express written consent of the publisher.

Library of Congress Catalog Card Number: 2002038103
ISBN: 0-89789-863-X

First published in 2002

Praeger Publishers, 88 Post Road West, Westport, CT 06881
An imprint of Greenwood Publishing Group, Inc.
www.praeger.com

Printed in the United States of America



The paper used in this book complies with the Permanent Paper Standard issued by the National Information Standards Organization (Z39.48-1984).

Contents

Preface	vii
PART I: THE KEY IDEAS OF TEAM-BASED LEARNING	1
1. Beyond Small Groups: Harnessing the Extraordinary Power of Learning Teams <i>L. Dee Fink</i>	3
2. Getting Started with Team-Based Learning <i>Larry K. Michaelsen</i>	27
3. Creating Effective Assignments: A Key Component of Team-Based Learning <i>Larry K. Michaelsen and Arletta Bauman Knight</i>	53
4. Group Process Research: Implications for Using Learning Groups <i>Carolyn Birmingham and Mary McCord</i>	77
PART II: THE VOICES OF EXPERIENCE	99
5. An Alternative to Lecturing in the Sciences <i>Frank J. Dinan</i>	101
6. Using Case Studies in Science—And Still “Covering the Content” <i>Clyde Freeman Herreid</i>	109
7. Working with Nontraditional and Underprepared Students in Health Education <i>Patricia Goodson</i>	119

8. A Dramatic Turnaround in a Classroom of Deaf Students <i>Melanie C. Nakaji</i>	129
9. Overcoming Initial Mistakes When Using Small Groups <i>G. Fred Streuling</i>	137
10. Creating Group Assignments that Teach Multiple Concepts in an Interdisciplinary Course Context <i>Laurie A. Lucas</i>	149
11. Team-Based Learning in Large Classes <i>Larry K. Michaelsen</i>	157
12. Using Team-Based Learning in a Very Traditional, Cultural, and Institutional Context <i>Jiří Popovský</i>	173
13. Team-Based Learning in International Situations <i>Jon Cragin</i>	177
14. Team-Based Learning in a Course Combining In-Class and Online Interaction <i>Mark Freeman</i>	189
15. Team-Based Learning: A Strategy for Transforming the Quality of Teaching and Learning <i>Arletta Bauman Knight</i>	201
Appendices	
A. Frequently Asked Questions about Team-Based Learning <i>Larry K. Michaelsen</i>	213
B. Calculating Peer Evaluation Scores <i>Larry K. Michaelsen and L. Dee Fink</i>	233
C. Setting Grade Weights: A Team-Building Exercise <i>Larry K. Michaelsen</i>	245
D. Miscellaneous Materials Related to Team-Based Learning	253
Bibliography	273
Index	281
About the Editors and Contributors	287

0164a-2

Preface

This book is about team-based learning, an instructional strategy that is based on procedures for developing high performance learning teams that can dramatically enhance the quality of student learning—in almost any course. Where did this idea come from? Why is it important for teachers and others in higher education to learn about it and understand it more fully?

ORIGIN OF THE IDEA OF TEAM-BASED LEARNING

The idea of team-based learning originated with Larry Michaelsen in the late 1970s. As a faculty member at the University of Oklahoma, Michaelsen was confronted with a new and daunting pedagogical challenge. Because of enrollment pressures in his department and college, he was forced to triple the size of his primary course from 40 to 120 students.

He had used group activities and assignments in the smaller classes, and this method was effective in helping students learn how to apply concepts, rather than simply to learn about them. Based on this experience, he was convinced that the same kinds of group activities would work in large classes as well. As a result, he rejected the advice of his colleagues who advised turning the class into a series of lectures, in favor of an approach that involved using the vast majority of class time for group work.

By the middle of the first semester in which he tried this approach, it was obvious that this new teaching strategy was working. In fact, it was working so well that it accomplished three things that Michaelsen had not even anticipated. First, the students themselves perceived the large class setting as being far more beneficial than harmful. Second, the approach created several conditions that would enhance learning in any

vii

setting. In spite of the size of the class, for example, the approach was prompting most students to take responsibility for their own and their peers' learning. Third, Michaelsen was having fun. Because the students were getting their initial understanding of the content through their own efforts, he could concentrate his efforts on the aspect of teaching that he enjoyed most: designing assignments and activities that would enable students to discover why the subject matter that was so near and dear to him was important to them as well.

DEVELOPMENT AND REFINEMENT

After this modest but auspicious beginning, Michaelsen knew that he was on to something important, something that had major significance for other college teachers as well as for himself. As a result, he has devoted much of his professional attention since that time to increasing his own understanding of why this way of using small groups works so well. He has also concentrated on helping other teachers take advantage of this innovative teaching strategy. Over time he discovered that his ability to increase his own understanding of these processes was directly related to two sets of activities.

The first set of activities relates to the research literature on the development and management of teams in multiple settings. Although he was already familiar with this literature, he was now able to read and understand it in a new way. As a result of observing hundreds of newly formed groups go through the process of maturing into effective teams, he could more clearly see the parallels between educational teams and teams in other settings. In addition, he discovered that his use of small groups raised the dynamics within groups to a higher level of capability. His student groups were being transformed by the team-based learning process into powerful learning teams, a phenomenon not well described in the literature. As a result, he was able to collect and analyze new data on the team development process and contribute articles of his own to the scholarly literature on the development and management of effective teams (Michaelsen, Watson & Black, 1989; Watson, Kumar, & Michaelsen, 1993; Watson, Michaelsen, & Sharp, 1991).

The other activity involved making contacts with people who either used or wanted to use teams in both business and educational settings. Over the years he has worked extensively with business executives to find ways to develop and manage effective work teams in corporate settings. In the academic setting, he has worked extensively to help professors find ways of building effective learning teams. He has conducted over 200 workshops for faculty members and published articles in a wide range of journals focused on college teaching (Michaelsen, 1983a,b, 1992, 1999; Michaelsen & Black, 1994; Michaelsen, Watson, Cragin, & Fink, 1982). As a result of this involvement in both business and academia, he has both taught and been taught by thousands of people who are actively "working in the trenches" to develop effective teams. The most important consequence of this activity for Michaelsen is that he has developed an ability to see patterns of effective team development across a wide range of academic and business settings.

REASONS FOR WRITING THIS BOOK

0164a-3

While Michaelsen is clearly the person who created and refined the idea of team-based learning, we [Fink and Knight] have worked closely with him for many years in writing articles and conducting workshops on the subject. As director and associate director of the Instructional Development Program at Oklahoma for many years, we have often recommended this approach to teaching for faculty who are facing problems in their courses. When faculty members complain that students are not showing interest in their courses, will not do the homework, or just generally do not seem to be understanding the material, team-based learning is one of the most powerful tools we can recommend.

As awareness of, and interest in, the use of team-based learning has grown nationally and internationally, all three of us have seen a steep rise in the number of requests for more information about team-based learning: "What is it? How do you do it? Will it work in my special situation?" This increased interest made the time seem right to put together a book on the subject that would answer as many of these questions as possible. And we were anxious to join in that effort.

OUR HOPES FOR THIS BOOK

When the three of us considered what prompted us to take on the sizeable task of creating a book, we discovered strong excitement and strong frustration shaping our hopes of what this book might accomplish.

The excitement comes from our observation and conviction that team-based learning can truly change and transform the quality of the classroom experience for both the teacher and the students. We have seen teacher after teacher, on our own campus and on other campuses, shift to using team-based learning and report extraordinary results. The students enjoy the class more and they learn more; teachers often rediscover their joy for teaching again. One of our hopes for this book is that it will enable more teachers to transform their teaching in similarly positive ways.

Along with this excitement, though, we have also felt strong frustration coming from two opposite directions. One source of frustration is with individuals who have observed or experienced a poorly designed use of small groups and, as a result are ready to "throw the baby out with the bath water." Periodically we hear or read stories about students in a class in which the teacher did all the wrong things with groups. The students involved, and others who read and hear about such events, conclude correctly that this was a terrible experience, but they are wrong when they generalize from these situations and conclude that teaching with small groups is generally a bad form of teaching. Such people have not yet learned that there are principles involved in the effective use of small groups and have not taken the time to learn what these principles are; we hope this book will help readers understand these principles and learn how to use them.

Ironically, our other source of frustration is with some of our colleagues who are powerful and competent advocates of teaching with small groups. Our frustration is

not that they have not made positive contributions to teaching. In fact, it is just the opposite. The problem is that they have been so successful and effective in selling their message—that is, that structured small group activities are a powerful and effective way to promote active learning in existing courses—that they and others have had difficulty differentiating *small group learning* from *team-based learning*. As a result, the message that learning *teams* can produce extraordinary outcomes, even in very difficult teaching settings, has been difficult to disseminate. Hence, our final hope is that this book will allow those who already value small group teaching to more fully understand the difference between groups and teams and to see the possibility that teams can take small group learning to a whole new level of significance.

THE STRUCTURE OF THIS BOOK

With these hopes and goals in mind, we have created four parts in the book. Part I lays out the key ideas that are important for understanding what team-based learning is, how it works, and what is necessary to make it work effectively.

Part II, “The Voices of Experience,” contains chapters written by teachers who have used team-based learning effectively in a variety of situations. We intentionally sought out contributors who had taught different kinds of subject matter, taught with different sized classes and in different cultural settings, and even in the rapidly emerging world of online learning. These writers, in essence, provide the evidence in support of our claim that team-based learning is a transformative use of small groups. That is, team-based learning can be applied in a wide variety of teaching situations with extraordinary results.

The concluding chapter summarizes the reasons teachers decided to try team-based learning and how they overcame any initial concerns. More important, it is a summary of the impact this teaching strategy can have on student learning, student attitudes toward learning, and the ability of teachers to enjoy teaching again.

The set of appendices contains a variety of charts, tables, forms, and recommendations that may be useful when using team-based learning and when trying to explain this special teaching strategy to others (e.g., students, colleagues).

INTERACTIVE WEBSITE ON TEAM-BASED LEARNING

We also invite readers to visit the interactive website that has been set up for people interested in learning more about team-based learning: www.teambasedlearning.org.

This website serves two primary functions. First, it will be a forum for continuing the conversation about team-based learning. The e-mail and listserv functions will allow people to ask questions, share successes and problems, find out who might be using team-based learning with a similar subject or in a similar situation, and so on. The second function is to archive important and helpful information. Our sense of what this should include will undoubtedly evolve over time. But initially we expect to

create three sections: one on “Frequently Asked Questions” (which will continue to grow from the one included in this book), a brief description of courses in multiple disciplines in which team-based learning has been used effectively, and video clips of various activities and exercises from Larry Michaelsen’s classes.

We hope you will visit the website, find ideas of value to you, and—when appropriate—contribute material about your own experiences with team-based learning for the benefit of others.

ACKNOWLEDGMENTS

We are especially indebted to the able and generous work of Carolyn Ahern in shaping and editing this manuscript. Her knowledge of proper form and eye for consistency have made this a much more readable manuscript.

REFERENCES

- Michaelsen, L. K. (1983a). Developing professional competence. In *Learning in groups*. Ed. C. Bouton and R. Y. Garth. *New directions for teaching and learning*, Vol. 14. San Francisco: Jossey-Bass.
- . (1999). Myths and methods in successful small group work. *National Teaching and Learning Forum* 8(6): 1–5.
- . (1992). Team learning: A comprehensive approach for harnessing the power of small groups in higher education. In *To improve the academy: Resources for faculty, instructional, and organizational development*, Vol. 11. Ed. D. H. Wulff and J. D. Nyquist. Stillwater, OK: New Forums Press.
- . (1983b). Team learning in large classes. In *Learning in groups*. Ed. C. Bouton and R. Y. Garth. *New directions for teaching and learning*, Vol. 14. San Francisco: Jossey-Bass.
- Michaelsen, L. K., & Black, R. H. (1994). Building learning teams: The key to harnessing the power of small groups in higher education. In *Collaborative learning: A sourcebook for higher education*, Vol. 2. State College, PA: National Center for Teaching, Learning and Assessment.
- Michaelsen, L. K., Watson, W. E., & Black, R. H. (1989). A realistic test of individual versus group consensus decision making. *Journal of Applied Psychology* 74(5): 834–839.
- Michaelsen, L. K., Watson, W. E., Cragin, J. P., & Fink, L. D. (1982). Team learning: A potential solution to the problems of large classes. *Exchange: The Organizational Behavior Teaching Journal* 7(1): 13–22.
- Watson, W. E., Kumar, K., & Michaelsen, L. K. (1993). Cultural diversity’s impact on group process and performance: Comparing culturally homogeneous and culturally diverse task groups. *Academy of Management Journal* 36(3): 590–602.
- Watson, W. E., Michaelsen, L. K., & Sharp, W. (1991). Member competence, group interaction and group decision-making: A longitudinal study. *Journal of Applied Psychology* 76: 801–809.