

TABLE OF CONTENTS

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <i>List of Exhibits</i> | vii |
| <i>About the Authors</i> | x |
| <i>Acknowledgments</i> | xii |
| 1. A Guide for Scholarly Inquiry Into Teaching | |
| What Is Happening in My Classroom? | |
| Teaching: A Scholarly Journey | |
| A Model for Your Classroom Inquiry | |
| <i>Inquiry Step 1: Reflecting on Course Background, History, and Development</i> | |
| <i>Inquiry Step 2: Identifying an Issue to Investigate</i> | |
| <i>Inquiry Step 3: Defining an Inquiry Hypothesis</i> | |
| <i>Inquiry Step 4: Developing an Investigative Plan</i> | |
| <i>Inquiry Step 5: Relating Your Inquiry to What Has Been Done Before</i> | |
| <i>Inquiry Step 6: Seeking Institutional Approval and Student Consent</i> | |
| <i>Inquiry Step 7: Teaching the Course</i> | |
| <i>Inquiry Step 8: Interpreting and Evaluating Your Findings</i> | |
| <i>Inquiry Step 9: Reflecting on the Inquiry Process</i> | |
| Checklist for Assessing Classroom Inquiry | |
| What's Next | |
| 2. The Basic Structure of Classroom Inquiry | 31 |
| <i>Inquiry Question: What is the change to student learning that results from replacing two in-class projects with out-of-class exercises in which students collect images that demonstrate fundamental course concepts?</i> | |
| 3. Incorporating Additional Forms of Data Collection | 44 |
| <i>Inquiry Question: How do classroom methods and practices develop student skills for thinking critically and independently?</i> | |

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 4. Using Classroom Inquiry to Answer Multiple Questions | 59 |
| <i>Inquiry Question:</i> How does using different assessment strategies improve students' learning? | |
| 5. Overcoming Challenges With Data Collection | 78 |
| <i>Inquiry Question:</i> Does having students complete a weekly essay homework assignment improve their ability to explain and discuss mathematical concepts? | |
| 6. Linking Classroom Inquiry With Disciplinary Research | 93 |
| <i>Inquiry Question:</i> Does increased use of supplementary materials related to race lead to an increase in racial tolerance among students? | |
| 7. Obtaining Useful Inquiry Results, but More Data Is Needed | 107 |
| <i>Inquiry Question:</i> Is there an ideal size and team member composition that will enhance student success on a service-learning project? | |
| 8. Using Classroom Inquiry to Evaluate New Assessment Measures | 122 |
| <i>Inquiry Question:</i> What is the effect of having students grade each other's essay examinations in a survey course? | |
| 9. Classroom Inquiry for Measuring Feedback on Student Learning and Aptitudes | 138 |
| <i>Inquiry Question:</i> What is the effect of web-based assessment practices on students' performance and attitudes? | |
| 10. Classroom Inquiry and Scholarly Teaching | 156 |
| <i>Inquiry Question:</i> Are visual methods of brainstorming more effective than verbal methods? | |
| 11. Beginning Your Scholarly Journey | 174 |
| Lessons Concerning Classroom Inquiry | |
| Practical Advice for Conducting Your Inquiry | |
| From Scholarly Teaching to the Scholarship of Teaching and Learning | |
| Models for Disseminating Your Inquiry Work | |
| Resources for Learning More | |
| An Invitation to Set Out on Your Scholarly Journey | |