

Instructor's Manual

for

A Research Primer for Communication Sciences and Disorders

Timothy Meline
Lamar University

PEARSON

Boston New York San Francisco
Mexico City Montreal Toronto London Madrid Munich Paris
Hong Kong Singapore Tokyo Cape Town Sydney

Copyright © 2010 Pearson Education, Inc.

All rights reserved. The contents, or parts thereof, may be reproduced with *A Research Primer for Communication Sciences and Disorders*, by Timothy Meline provided such reproductions bear copyright notice, but may not be reproduced in any form for any other purpose without written permission from the copyright owner.

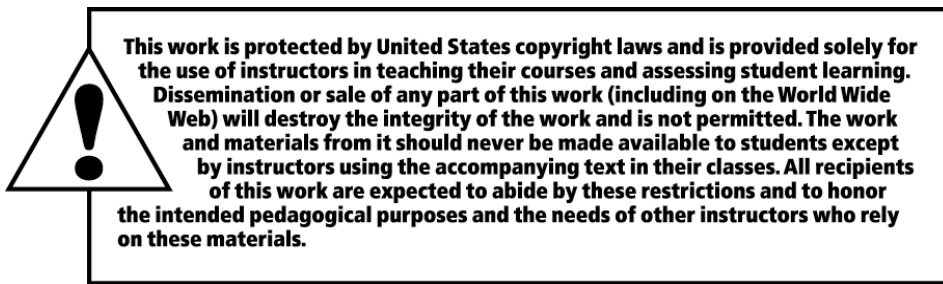
To obtain permission(s) to use the material from this work, please submit a written request to Permissions Department, 501 Boylston Street, Suite 900, Boston, MA 02116; fax your request to 617-671-2290; or email permissionsus@pearson.com

PEARSON

www.pearsonhighered.com

ISBN-10: 0-13-136717-X

ISBN-13: 978-0-13-136717-3



CONTENTS

PART I

Foundations of Science and Research in Communication Disorders

Chapter One

Scientific Inquiry in Communication Disorders Research	
Overview	1
Objectives	1
Outline	2
Test Bank	3
Essay Questions	5
Answer Key	6

Chapter Two

Ethics in Communication Disorders Research	
Overview	7
Objectives	7
Outline	8
Test Bank	9
Essay Questions	11
Answer Key	12

Chapter Three

Evidence-Based Practice in Communication Disorders	
Objectives	13
Outline	13
Test Bank	14
Essay Questions	16
Answer Key	17

Chapter Four

Measurement in Communication Disorders Research	
Overview	18
Objectives	18
Outline	19
Test Bank	19
Essay Questions	22
Answer Key	22

PART II

Research Designs for Scientists/Practitioners in Communication Disorders

Chapter Five

Group Designs in Communication Disorders Research	
Overview	23
Objectives	23
Outline	24
Test Bank	24
Essay Questions	27
Answer Key	27

Chapter Six		
	Qualitative Designs in Communication Disorders Research	
	Overview	28
	Objectives	28
	Outline	29
	Test Bank	30
	Essay Questions	32
	Answer Key	33

Chapter Seven		
	Single Case Designs in Communication Disorders Research	
	Overview	34
	Objectives	34
	Outline	35
	Test Bank	35
	Essay Questions	38
	Answer Key	39

Chapter Eight		
	Nonexperimental Research Designs in Communication Disorders	
	Overview	40
	Objectives	40
	Outline	41
	Test Bank	42
	Essay Questions	44
	Answer Key	45

PART III

Testing Hypotheses in Communication Sciences and Disorders Research

Chapter Nine		
	Hypothesis Testing in Communication Disorders Research	
	Overview	46
	Objectives	46
	Outline	47
	Test Bank	48
	Essay Questions	50
	Answer Key	51

Chapter Ten		
	Quantitative Analysis in Communication Disorders Research	
	Overview	52
	Objectives	52
	Outline	53
	Test Bank	53
	Essay Questions	56
	Answer Key	56

Chapter Eleven

Synthesizing Research in Communication Disorders

Overview	57
Objectives	57
Outline	58
Test Bank	59
Essay Questions	61
Answer Key	62

PART IV

Applied Research for Audiologists and Speech-Language Pathologists

Chapter Twelve

Evaluating Research for Practice in Communication Disorders

Overview	63
Objectives	63
Outline	64
Test Bank	64
Essay Questions	67
Answer Key	67

Chapter Thirteen

Writing for Research in Communication Disorders

Overview	68
Objectives	68
Outline	69
Test Bank	69
Essay Questions	72
Answer Key	72

PREFACE

The *Instructor's Manual for A Primer for Research in Communication Sciences and Disorders* provides overviews, objectives, key terms, and a bank of test questions for each chapter. The material in the *Instructor's Manual* supplements the Thought Questions, Case Studies, and Student Exercises that accompany each chapter of the book. Instructors are encouraged to incorporate thought questions, case studies, and chapter exercises throughout the course as active learning and formative assessment strategies.

Formative and Summative Assessments

Formative instruction occurs when teachers inform students in ways that improve their learning or when students engage in self reflection. Formative instruction works best when it occurs regularly throughout the course. Formative tests are usually not graded but are used as ongoing diagnostic tools. The instructor and students employ the results to modify and adjust teaching/learning practices. In contrast, *summative assessments* are tests such as those given at midterm or at the end of the course for the sole purpose of evaluation. Other examples of summative assessments are the standardized achievement tests such as the ACT, SAT, GRE, and the Praxis Exam. Black and Wiliam (1998) offered a culinary analogy to explain the difference between formative and summative assessments. When a cook tastes the soup, that is formative assessment. When the customer tastes the soup, that is summative assessment. Examples of formative learning and assessment techniques include: (a) focused listening, (b) opinion polls, (c) 2-minute papers, and (d) the muddiest point.

Focused listening measures what students do and do not know about the topic. It can be used at the beginning, middle, or end of a class period. When to use focused listening depends on the instructor's objective. If the instructor wishes to assess students' prior knowledge of a topic, focused listening is implemented at the beginning of a class period or prior to introducing a new topic. The use of focused listening in the middle of a lecture provides feedback that the instructor can use during the instruction. The use of focused listening at the end of a class measures: (a) students' comprehension of the material and (b) the effectiveness of the instructor's teaching methods. Focused listening is implemented by introducing a focal concept and providing instructions to students. For example, students can be instructed to write down as many words as possible in a minute that are related to a focal concept or a key term. The results may be reviewed in class for immediate feedback or collected and reviewed outside of class.

Write down as many words as you can
that are related to "scientific method."

Another formative learning/assessment strategy makes use of opinion polls. *Opinion polls* help to determine what students think about a specific topic including their misconceptions, attitudes, biases, and values. A quick poll can help instructors decide how best to present a topic. Alternatively, an opinion poll at the end of class can help assess whether students' attitudes have changed as a result of the instruction. A simple classroom poll would ask students to raise their

hands in response to a question. An alternative and more formal procedure is to cast ballots. These are synchronous instruction procedures. If the course is asynchronous (web based), the instructor can use discussion groups or ask for ballots to be cast online.

Do you believe that clinical practice should be based on scientific evidence?

Summarize the most important points from today's lecture.

A third formative learning/assessment strategy is the 2-minute paper. The *two-minute paper* is most appropriate at the end a class period. The instructor may ask students to summarize the day's lecture, state questions that remain, or list the most important things that they learned during the class period. To implement the two-minute paper, instructors typically reserve several minutes at the end of the class period. The instructor collects the students' responses and evaluates them outside of class. The results can be used to help plan the next days' lecture. If teaching is asynchronous, the students can submit 2-minute papers at the end of each week or at the conclusion of each assignment.

A fourth formative learning/assessment strategy is the muddiest point. The *muddiest point* technique is best used at the end of a class period. The students are asked to write down one thing about the day's lecture that they did not understand. The instructor collects the students' responses and uses the responses to help plan the next day's lecture or review. In asynchronous learning situations, students can offer muddiest points in discussion groups online.

What is one thing about today's material that you did not understand?

Writing Assignments

Students benefit most from hands-on experience with research. Collaborative research projects encourage students to appreciate the excitement of discovery and the reward of scholarship (Mueller & Lisko, 2003). In the course of hands-on experience with research, students should be encouraged to practice their writing skills. Writing is a creative process, but instruction and practice help to teach style and the mechanics of writing. In addition to student-directed research, writing assignments might take the form of critical reviews of research reports. The rewriting/revision and editing stages of the writing process are opportunities for formative assessment and instruction. The material in Chapter 13 is a resource for developing writing

skills. Though the chapter is placed at the end of the textbook, instructors may find it useful to assign readings in Chapter 13 prior to writing assignments for the course.

Distance Learning

Reid (2009) says that “Online courses are a disruptive technology in the sense that it requires different pedagogical methods which may not yet be fully understood.” According to Reid (2009), key features for the successful implementation of online courses include the student’s familiarity with information technology in advance of the course as well as training for the online moderators (instructors). Whereas feedback in synchronous, classroom environments is almost immediate, the feedback in asynchronous learning environments is often delayed for days. Teachers of online courses can overcome this disability by incorporating feedback mechanisms at regular intervals that students can anticipate.

It may also be difficult to encourage discussion of key points among students who are disconnected by geographic distance and asynchronous time. This problem is overcome by incorporating a “water cooler” area in the online course for discussion and social interaction. The advantages of online instruction include the diversity of experiences and geographic dispersion of students. Students should be encouraged to share their different orientations and experiences as they relate to the research topic. For example, what are research questions that relate to your personal experiences and locale?

As Graham et al. (2000) point out, asynchronous conferencing is a key component of online instruction. To use asynchronous conferencing effectively, they recommend:

1. Make the grade dependent on the student’s participation.
2. The instructor should provide a specific task to help focus the discussion rather than just asking students to discuss a topic. Sometimes it is helpful to assign roles (e.g. sides of an issue) to stimulate discussion.
3. The task is chosen to engage the student in the content.
4. Discussion should be evaluated based on quality of content and not length or number of postings.
5. Instructors should post examples of expectations for discussions, e.g. types of postings that are substantive.
6. Students should get feedback on discussions.
7. Discussion groups should be small enough to encourage meaningful discussion. If your online course includes a large number of students, you can assign students to different discussion groups.

References

- Black, P. & Wiliam, D. (October, 1998). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan*, 80, 139-148.
- Graham, C., Cagiltay, K., Craner, J., Lim, B-R, & Duffy, T. M. (2000). *Teaching in a web based distance learning environment: An evaluation summary based on four courses*. Center for Research on Learning and Technology Technical Report No. 13-00. Bloomington, IN: Indiana University.
- Mueller, P. B., & Lisko, D. (2003). Undergraduate research in CSD programs: A solution to the PhD shortage? *Contemporary Issues in Communication Science and Disorders*, 30, 123-126.
- Reid, S. (2009). Online courses and how they change the nature of class. *First Monday*, 14. Retrieved July 3, 2009, from <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2167/2114>