

CMSD 4000: Treatment Outcome Evaluation in Speech-Language Pathology  
Spring 2003

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Class will meet from 12:20 to 3:00 on Friday afternoons, in Aderhold Hall Room 581  
Office hours will be posted on my door, or send me an email

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Description

This course addresses two questions of great importance to speech-language pathology: “Does treatment work?” and “How do we know?” Specific topics include (a) the design and interpretation of treatment research; (b) the notion of “evidence-based practice”; and (c) the concept of the “scientist practitioner” or “clinical scientist” in speech-language pathology.

Prerequisites

Open only to final-semester graduating seniors in Communication Sciences and Disorders who have completed all previous CMSD courses with grades of “C” or better. Enrollment is limited to 20 students.

Learning Objectives

During and after this course, students will

- 1) analyze, synthesize, and evaluate the principles of behavioral treatment research, and apply those principles to speech-language pathology;
- 2) analyze, synthesize, and evaluate the principles of “evidence-based medicine” and apply those principles to speech-language pathology; and
- 3) evaluate the notion of a “scientist practitioner” in speech-language pathology, and begin to determine whether, how, and why such a notion will influence their own careers.

Texts

1. Dawes, M., Davies, P., Gray, A., Mant, J., Seers, K., & Snowball, R. (1999). Evidence-based practice: A primer for health-care professionals. Edinburgh: Churchill Livingstone.
2. The other articles and chapters listed in the schedule
3. The articles and chapters that your colleagues will select and assign during the semester

## Evaluation

Evaluation of student performance for this course will be based on three or four of the following four assignments, depending on the choices you make:

1. Midterm exam about behavioral treatment research (in-class exam) (required)
2. Midterm exam about evidence-based medicine (in-class exam) (required)
3. Presentation (includes all five steps/parts described on the handout called “Presentation Guidelines and Requirements”) (required)
4. Final exam (optional)

Grades will be assigned according to the following system.

Option 1 (for those who do well but just don’t want to stress about getting “A”s anymore): If you earn scores of 75% or better on each of the midterms, and earn a score of 75% or better on the presentation, and do not take the final, you will be assigned a “B” for the course.

Option 2 (for those who still care about getting an “A”): If you earn scores of 90% or better on each of the midterms, and earn a score of 90% or better on the presentation, and do not take the final, you will be assigned an “A” for the course.

Option 3 (also for those who still care about getting an “A”): If you earn scores of 75% or better on each of the midterms, and earn a score of 75% or better on the presentation, and earn a score of 90% or better on the final, you will be assigned an “A” for the course.

Option 4 (for anybody who does not fall into any of the above categories): Your course grade will be based on an equally weighted average of all four scores, using the standard 90-80-70-60 system.

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### Summary: Minimum scores required on the four possible assignments, for four options

	Midterm 1	Midterm 2	Presentation	Final exam
“Just take the B”	75	75	75	0
“A from 3 scores”	90	90	90	0
“A from 4 scores”	75	75	75	90
all others	(average of all four scores, using 90=A, 80=B, etc.)			

## Missed exams, late papers, etc.

My basic policy is not to do make-up exams and not to accept late assignments. Exceptions will be made on a case-by-case basis for true personal emergencies, usually following the general rules described here.

Make-ups will be arranged for midterm exams if the reason for missing an exam is a documented medical or personal emergency that could not possibly have been taken care of at another time and that to my satisfaction unquestionably prevented you from taking the exam. Make-up exams will be 50% essay questions and 50% oral exam and must be completed by the end of the day on Wednesday following the exam date, unless you can provide documentation that makes that deadline impossible.

All parts of your presentation assignment are critical. Any Initial Literature Search or Summary Description that is not turned in on time will receive zero credit. If you are not present on the day you are scheduled to do your main presentation, or on the Open House day, you will receive zero credit for that part of the assignment, regardless of how much work you may have already put into preparing the presentation. If the reason for your absence is a documented,

sudden, serious, personal or medical emergency, I will work with you to develop a reasonable alternative assignment for you (which might be as simple as you presenting on another day, or might be more complex).

If a documented, sudden, serious personal or medical emergency prevents you from taking the final exam, and if you were planning to take the final exam and do not want to accept any grade that I could assign without the final based on the options described above, I will assign a semester grade of "Incomplete." We will meet on or after Monday, May 12, 2003, to schedule a date for your make-up exam. Make-up finals will be 50% essays and 50% oral exam. Please note that missing the final exam, if you need to or choose to take the final exam, will delay your graduation if you are planning to graduate this semester.

### Academic Honesty

The following definitions are taken directly from The University of Georgia's academic honesty policies (see [http://www.uga.edu/ovpi/academic\\_honesty/culture\\_honesty.htm](http://www.uga.edu/ovpi/academic_honesty/culture_honesty.htm)):

**"Academic Honesty"** means performing all academic work without plagiarism, cheating, lying, tampering, stealing, receiving unauthorized or illegitimate assistance from any other person, or using any source of information that is not common knowledge.

**"Academic Dishonesty"** means knowingly performing, attempting to perform, or assisting any other person in performing any academic work that does not meet this standard of academic honesty

All work completed for this course must meet the standards contained in the complete "A Culture of Honesty" policy, which is available at the website listed above. All UGA students are responsible for informing themselves about those standards before performing any academic work (and it's worth re-reading the policy every so often, too). For this course in particular, students should be aware that in-class exams are to be completed entirely independently, with no written, outside, or human resources of any kind, and that presentations must clearly differentiate between your work and work from other sources that you are referring to or summarizing. Copying and pasting anything, even one word, from a website or an on-line journal article into any part of the presentation assignment might be plagiarism; you are better off taking notes and re-typing in your own words, providing appropriate direct quotations and references to make it clear where your information came from. We will talk in class about APA referencing style, if you need a review of this information.

### Disclaimer

The following schedule is a general plan for the course. Deviations announced to the class by the instructor may be necessary.

## **Topic Outline, Readings, Assignments, and Schedule for the Course**

Friday, January 10: Introduction, Planning, and the Idea of Treatment “Outcomes”

### **Section One: Behavioral Treatment Research**

Friday, January 17: Some Basic Pieces and Ideas

Chapters 3 and 4, titled “The sequence of events in research” and “Basic principles of research design,” from Doehring, D. G. (1996). *Research strategies in human communication disorders* (2<sup>nd</sup> ed.). Austin, TX: Pro-Ed.

Most of Chapter 3, titled “Criteria for evaluating research designs,” from Ventry, I. M., & Schiavetti, N. (1986). *Evaluating research in speech pathology and audiology* (2<sup>nd</sup> ed.). New York: Macmillan.

Friday, January 24: Single-Subject Treatment Research

McReynolds, L. V., & Thompson, C. K. (1986). Flexibility of single-subject experimental designs. Part I: Review of the basics of single-subject designs. *Journal of Speech and Hearing Disorders*, 51, 194-203.

Kearns, K. (1986). Flexibility of single-subject experimental designs. Part II: Design selection and arrangement of experimental phases. *Journal of Speech and Hearing Disorders*, 51, 204-214.

Friday, January 31: Group Treatment Research

(Initial Literature Search due at beginning of class on January 31)

Chapter 9, titled “Experimental-type designs,” from DePoy, E., & Gitlin, L. N. (1998). *Introduction to research: Understanding and applying multiple strategies* (2<sup>nd</sup> ed.). St. Louis, MO: Mosby.

Roy, N., Gray, S. D., Simon, M., Dove, H., Corbin-Lewis, K., & Stemple, J.C. (2001). An evaluation of the effects of two treatment approaches for teachers with voice disorders: a prospective randomized clinical trial. *Journal of Speech, Language, and Hearing Research*, 44, 286-296.

**Friday, February 7: Exam 1 – Behavioral Treatment Research**

### **Section Two: Evidence-Based Medicine**

Friday, February 14: The Basics of EBM/EBP

Bothe, A. K. (in press). Evidence-based practice in stuttering treatment: An introduction. To appear in A.K. Bothe (Ed.), *Evidence-based treatment of stuttering: Empirical issues and practical applications*. Mahwah, NJ: Lawrence Erlbaum.

Dawes et al. (1999) textbook: Chapters 1-5 (pp. 1 - 58)

Friday, February 21: Larger Issues and Implications of EBM/EBP

Dawes et al. (1999) textbook: Chapters 7 - 9 (pp. 69 -100), Chapter 12 (pp. 127-131), Chapter 14 (pp. 159-180), and Chapter 20 (pp. 243-245)

Friday, February 28: The Context and The Critics

(Draft of Presentation Summary and Reading Assignment due at beginning of class on Feb. 28)

Trinder, L. (2000). Introduction: The context of evidence-based practice. In L. Trinder & S. Reynolds (Eds.), Evidence-based practice: A critical appraisal (pp. 1-16). Oxford, England: Blackwell Science.

Trinder, L. (2000). A critical appraisal of evidence-based practice. In L. Trinder & S. Reynolds (Eds.), Evidence-based practice: A critical appraisal (pp. 212-241). Oxford, England: Blackwell Science.

**Friday, March 7: Exam 2 – Evidence-Based Medicine**

### **Section Three: Application to Speech-Language Pathology**

Friday, March 14: Encouraging Science and Research in the Practice of SLP

Siegel, G. M. (1993). Research: A natural bridge. *ASHA*, 35 (January), 36-37.

Goldberg, B. (1993). Translating data into practice. *ASHA*, 35 (January), 45-47.

Costello, J. M. (1979). Clinicians and researchers: A necessary dichotomy? *Journal of National Student Speech and Hearing Association*, December 1979, 6-26.

Friday, March 21: Spring Break!

Friday, March 28: The Limits of Science in SLP

Siegel, G. M. (1987). The limits of science in communication disorders. *Journal of Speech and Hearing Disorders*, 52, 306-312.

Friday, April 4: Presentations, Day 1

Friday, April 11: Presentations, Day 2

Friday, April 18: Presentations, Day 3

Friday, April 25: Graduation Party and Open House

Friday, May 9, 8:00 - 11:00 a.m.: Final exam (optional)

Presentation Topics, Dates, and Presenters

Preschool stuttering – April 4 \_\_\_\_\_

SLI in children – April 4 \_\_\_\_\_

Voice disorders in  
Parkinsonism – April 4 \_\_\_\_\_

Phonology disorders in children –  
April 11 \_\_\_\_\_

Aphasia – April 11 \_\_\_\_\_

Adult stuttering – April 11 \_\_\_\_\_

Vocal nodules – April 18 \_\_\_\_\_

Speech or language in children with  
Down syndrome – April 18 \_\_\_\_\_

Speech production therapy/training  
after a cochlear implant – April 18 \_\_\_\_\_

Hippotherapy, music therapy,  
animal-assisted therapy, and/or Sensory  
Integration Therapy, as applied  
specifically to *speech and*  
*language* disorders – April 18 \_\_\_\_\_

\_\_\_\_\_ - April \_\_\_\_\_

**Presentation Guidelines and Requirements**

Your presentation for this class will include several steps and parts, worth a total of 100 points:

- Initial Literature Search – 10
- Summary Description – 10
- Main Presentation – 60
- Open House – 10
- Audience Points – 10

Each of these parts is described below. Please follow these guidelines carefully, and please feel free to ask me lots of questions if you need assistance – I’d much rather give you guidance along the way than have to tell you at the end that your presentation doesn’t meet my expectations.

### **1. Initial Literature Search – Due at beginning of class on Friday, January 31**

Do a library search for journal articles that report or summarize treatment research about your topic, and for book chapters that report or summarize treatment research about your topic. For journal articles, try the Web of Science, Medline, Current Contents, and PubMed (all available through GALILEO), in addition to any other databases or search tactics that you like. Book chapters are harder to find; either just go skim some books in the library or read the articles you find and see what books or chapters they refer to. Prepare a report of your search and your results that includes the following:

- a. a list of the search terms and databases you used, and of how many potential articles you found in each of the databases you searched using those terms;
- b. a list of the books you looked at, and/or a description of how else you searched for book chapters, and how many potential chapters you found;
- c. a description of how you got from all your “potential” articles and chapters to a list of 10 “good, relevant” articles and chapters (“good and relevant” is defined below); and
- d. full APA-style citations for the 10 good, relevant articles or chapters that you have selected as the basis of your presentation.

A “good, relevant” article or chapter is one that reports the results of a treatment research study, with a Method section, a Results section, and a Discussion section. Alternatively, a “good, relevant” article or chapter might describe previous research in some detail (with descriptions of the method of the study and of its results, using numbers) and come to some conclusions about the quality of that research and about its meaning or its implications. Articles or chapters that describe how to do a treatment, or that discuss different treatment options, do not count unless they are explicitly describing the research that tried to determine how well that treatment works. Articles or chapters that describe the nature of a disorder, or the characteristics of a disorder, do not count. Websites (by which I mean only websites; this is very different from official journals that happen to be available on the internet) will almost always be completely unacceptable sources for this project, as will most general textbooks.

There is one exception to the rule about using only “good, relevant” sources. You may include on your final list of 10 sources no more than one article or chapter, from a journal or from a scholarly or professional-level book or from a textbook, that describes the general characteristics of your disorder or describes general approaches to its treatment. Websites are still completely unacceptable; do not use a website as one of your 10 sources.

If you find more than 10 good, relevant articles or chapters, select a subset that you would like to focus on as the basis for your presentation. You are not limited to using only these

10 sources as you prepare your final presentation, and you do not have to explain all 10 articles in detail during your presentation. The idea at this stage is to select a set of 10 that could serve as a reasonable basis for the things you will explain to the class when you do your presentation. You might select your final 10 articles by selecting a couple older articles, a couple newer articles, and a couple chapters that seem to be very comprehensive; or you might do it by focusing on a subset or subportion of the whole topic that you started out with.

If, on the other hand, you simply cannot find as many as 10 good, relevant articles or chapters, despite your very best and most earnest efforts, make your answer for Part “c” of this assignment be a short paper (not more than a page) explaining everything you tried and why you think you can’t find anything. Then provide me in Part “d” with as many good, relevant references as you can, and supplement your list, to make it up to a total of 10, by adding in whatever it is that you CAN find about this treatment: articles that recommend the treatment, or that describe the treatment, etc. Make it very clear in your list which is which, if you have to fill in with things that you know do not qualify as “good, relevant” articles or chapters.

**Grading:** The Initial Literature Search is worth 10 points. The ability to find 10 good, relevant articles is not necessarily part of the grading criteria. For some topics, I know that there are many, many, good articles available, so you will need to find them and pick a reasonable subset of them. For other topics, there isn’t any research support, so of course I can’t expect you to find something that does not exist. Regardless of your topic, I do expect you to look, and to figure out from your own search whether you are dealing with a topic that has a lot of research support or only a little (or none!).

## **2. Draft of Presentation Summary and Reading Assignments – Due at beginning of class on Friday, February 28**

Start to figure out what you want to do during your presentation, and prepare a 2- to 5-page (typed, double-spaced) summary of what you will probably do during your presentation. This might take the form of an outline of the information you will present, if you want to do a relatively straightforward lecture sort of presentation. It might take the form of a description of the video that you are making, or the puppet show that you are preparing, or the pamphlet for family members that you are preparing, etc., if you are creating something creative like that. It might take the form of a description of the activity that you will have the class do, or of the discussion topics that you will have the class discuss, if you are preparing an activity or a debate/discussion for the class. The only requirement is that the content of your presentation be based on the treatment research that you have read about your topic, including based on your evaluation of the quality of that research, as we will discuss in class.

No matter what type of presentation you are planning, please make sure that your Summary includes the following:

- a. a description of what you will do or say or explain or have the class do, etc., during your presentation time;
- b. a timetable for your presentation that adds up to a total of approximately 30 minutes (i.e., show how long you will spend on each section or part of your presentation);
- c. a clear, clean copy of one article or chapter that you want the other members of the class to read before your presentation; and
- d. a single, separate cover page that I will xerox with your assigned article for everyone to read that includes the following information: your name, the date of your presentation, the

topic of your presentation, and a sentence or two about why you want everyone to read this and/or what they should focus on when they read it.

The article or chapter that you select for the other members of the class to read is completely up to you. You might pick an example of something good, an example of something done poorly, a good summary chapter to give the class some background, or an article that exemplifies one of the many points you want to make in your presentation. You might also want people to read something so they will be prepared to discuss it or debate it or otherwise use it as part of your presentation.

**Grading:** Your Summary and Reading Assignment is worth 10 points. I will be grading content, organization, and preparedness, but it's okay if your ideas or your presentation are not yet completely ready to present; the goal at this point is that you should have made substantial progress toward your presentation, not that you should be completely ready to give your presentation. As far as possible, given the specificity of your ideas at this point, I will give you feedback about the content, either to give you some reassurance that your content is good or else to help you to fix the content before you do your actual presentation. In this sense, it will be to your advantage to be as prepared as possible before you turn in your Summary; if you haven't done much, I won't have much to go on in giving you any guidance.

### **3. Presentation – In class on assigned date, April 4, 11, or 18**

You will do your presentation in class on your assigned date. If you want to use PowerPoint or some other computer projection, or use the videotape player, check your materials in the classroom by 5:00 p.m. on the Monday before your presentation. If it doesn't work, contact OIT for help; if they can't make it work, let me know by 8:00 a.m. on the Tuesday before your presentation, so we will have most of the week to try to come up with something. If you would like me to xerox handouts, make overheads, etc., get me your materials by 5:00 p.m. on the Wednesday before your presentation.

**Grading:** Your main presentation itself is worth 60 points. 50 points are for the quality of your content, including explicitly how well you used the tools we will talk about in class to evaluate the articles about your treatment; 10 points are for organization, mechanics, preparedness, and similar concepts.

### **4. Graduation Party and Open House – In class on Friday, April 25**

Our last class meeting will be a time to summarize and revisit the topics we talked about, and for you to teach the rest of the department about what you've found, in a format that will be a cross between a party and a science fair. You will each need something to present, but this time all presentations will occur simultaneously – so you'll want a poster, or a display, or a handout for people, or a video that we can run a few times in the corner of the room, or something like that. We will invite other students and the faculty to come in, have something to eat, and wander around the room to see your materials and to talk with you about what you found. (It might sound strange, but you will have gathered information that will be very useful to everyone in this whole department: Which treatments have evidence to support their use?)

You will probably want to keep this part of the assignment in mind as you develop your main presentation for class. You are more than welcome to re-use something for the Open House that you used for your presentation – that is, if you prepare a sort of a summary handout

for class, you can use that same handout for the Open House, as long as it is something that people would be able to understand without hearing your whole presentation.

**Grading:** Your participation in the Open House is worth 10 points. This grading will be based on the quality of the material you present (5 points) and on how well you answer questions from the other students and faculty who will attend (5 points). If you re-use something from your class presentation, grading will take into account whether you made any changes based on my feedback about your class presentation, if any such changes were needed, and on whether you've thought about how appropriate the handout is for your audience.

## **5. Audience Points**

Your advance preparation for your colleagues' presentations, your courteous attention to their presentations, and your participation in the discussions or activities that they plan are all vital to the success of the last third of this class. As a result, your preparation for, and participation in, other students' presentations will be worth 10 points. These points will come from two very brief reading quizzes about the student-assigned readings (2 points each, for a total of 4), from my own global judgment about how well you act as an audience member for your colleagues' main class presentations (4 points), and from my own global judgment about how well you act as an audience member for other people's presentations during the Open House (2 points).

### **Please note the following very strict rules for quizzes and attendance on April 4, 11, and 18:**

1. There will be a total of three reading quizzes, one on each of the three presentation days. You are required to take the quizzes on the two days that you are not presenting. If you choose to take the quiz on the day that you are presenting, you can earn those 2 points as bonus points, but if and only if you have earned all 4 points from the other two quizzes; that is, the third quiz can be bonus points but cannot be make-up points, and the bonus points can only be earned if all 4 of the points from the two required quizzes have been earned.

2. There will be no make-ups for missed reading quizzes.

3. If you miss more than 5 minutes of any presentation on April 4, 11, or 18, whether because you come late, leave early, or miss a class entirely, you will earn 0 of the 4 "global judgment" points about being an audience member for main presentations. Exceptions may be made for true documented emergencies, at my sole discretion, and for students who need to be at home for Passover; talk to me about developing alternative expectations for you.

I hate to end this long document with such negatively worded rules, so let's look at it the other way around. You can have 10 points just for doing what you will most likely do naturally: Do your friends and colleagues the courtesy of preparing for their presentations and acting like a good audience for them!

Class Presentations – CMSD 4000

Presenter: \_\_\_\_\_

/ 30 points: Basics – Presentation is clearly based on your reading of relevant primary (research) literature; presentation consists primarily of the results of your having correctly analyzed, synthesized, and evaluated that literature by using appropriately the topics we've discussed in this class; audience leaves with an accurate sense of what the research shows about treatment in your area

/ 20 points: Niceties and Extras – Thorough in details and in themes, but not too far above your audience; thoughtful/careful application of tools from this class (i.e., not all flaws are fatal, but some flaws are very important); combines multiple ideas in interesting ways from this class, from the papers you read, and from other classes/sources (hint: don't just discuss individual articles; look for the themes that emerge from them); engaging pedagogical decisions in content

/ 10 points: Organization, preparedness, presentation style, public-speaking variables

Total score:            / 60