

MUS_ED 425-0

Design & Implementation of Research in Music Education: Quantitative Research Methods

Northwestern University—Spring, 2005
Monday 2:00 to 4:50 p.m., University Library B182
Dr. Scott D. Lipscomb, Associate Professor
Office Hours: by appointment
or via email at anytime
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COURSE SYLLABUS

Course description: Review of empirical research methods and design with emphasis on quantitative models. The course will involve the study of descriptive and inferential statistical techniques. It will also afford students an opportunity for the practical application of knowledge gained in courses MUS_ED 423 and/or MUS_ED 424 in the processes of research design and data collection.

Incoming competency of students expected by instructor: graduate standing or permission of instructor. Students should have completed at least one of the following courses: MUS_ED 423 or MUS_ED 424.

Statement of Course Objectives:

This course will provide the student an opportunity to ...

- ✓ develop an awareness of the critical role that research plays in understanding musical behavior and in setting a foundation for better teaching
- ✓ learn how research can inform teaching practice
- ✓ discover that every quality research project provides questions to be answered via future research
- ✓ receive practical, hands-on experience working with a variety of quantitative research methods: descriptive, inferential, experimental, quasi-experimental, and mixed designs.
- ✓ develop evaluative skills that will enable critical analysis of research studies found in the literature

Required text (available at Norris):

JP: J. Pallant (2001). SPSS Survival Manual: A step by step guide to data analysis using SPSS for Windows. Philadelphia, PA: Open University Press.

WT: online resource for William Trochim's (2001) The Research Methods Knowledge Base, 2nd edition. Cincinnati, OH: AtomicDogPublishing.com. The cost is \$34.95 at: <http://www.atomicdog.com> (Course Registration ID: **2615284305030**). Alternatively, a print copy *and* the online resource are available for \$54.95. Point your internet browser to:
<http://www.atomicdog.com/Printout/index.asp?CRID=2615284305030>.

[if not owned, order online] Huff, D. (1954). How to Lie with Statistics. NY: Norton & Co.

students will also be expected to become familiar with (and use extensively) the *SPSS Online Help* documents

Optional texts (order online):

Phillips, J. L. (1999). How to Think About Statistics, 6th ed. NY: W.H. Freeman and Company.

APA (2001). Publication Manual of the American Psychological Association, 5th edition. Washington D.C.: American Psychological Association.

Additional Materials & Requirements:

- ✓ Students will be required to use SPSS statistical software for analyzing collected data. The software is installed on computers in student labs all across campus – *not in the Music Listening lab, however* – and, therefore, is readily accessible to students. *Learning to use SPSS and time spent inputting & analyzing data is not listed explicitly in the “Schedule of Assignments” (below), but is an implicit expectation and a course requirement.* A reduced “student version” of SPSS is available from <http://academicsuperstore.com> for (\$89.99), though it does not have all of the advanced capabilities we will be using this quarter.
- ✓ If you plan to work with statistical software on-campus, you will need storage media (USB Flash Drive is recommended) appropriate to lab in which you plan to work for saving your data files. It is imperative that you maintain files on media in your possession ... do *not* rely on lab server storage and always have a backup.
- ✓ Course materials and electronic communication will be available via Blackboard. Point a web browser to <http://courses.northwestern.edu>, then provide your NUnet username & password. Electronic communication will also be used to contact the instructor and/or other students.

Schedule of Assignments (subject to change)¹:

Week One

Course Goals & Objectives
Huff (read or review entire text)
Research Ethics, the Institutional Review Board, & Research Foundations
WT: Chapter 1

Week Two

Sampling, Measurement, & Survey Research
WT: Chapters 2, 3, & 4
Formulate Research Question

Week Three

Research Design
WT: Chapters 6, 7, & 8
FP: Present Research Question & Proposed Research Design

Weeks Four²

Advanced Design Topics & Analysis
WT: Chapters 9, 10, & 11
Present self-selected article #1 to class

Week Five

Preparing an SPSS Data File
JP: Parts One & Two, Chapters 1 to 5
FP: Begin Data Collection

Week Six

Preliminary Analyses
JP: Part Three, Chapters 6 to 10
Present self-selected article #2 to class

Week Seven

Exploring Relationships
JP: Part Four, Chapters 11 to 14
Writing a Research Paper
WT: Chapter 12

Week Eight

Comparing Groups
JP: Part Five: Chapters 15 to 18
Present self-selected article #3 to class

Week Nine

Comparing Groups (continued)
JP: Part Five, Chapters 19 to 21
FP: Present Preliminary Data Analysis & Interpretation

Week Ten

Brief Presentations (warm-up for Wednesday)

Thursday, June 2nd from 3:00 to 4:30 p.m. (required participation)

FP: Presentation to Center for the Study of Education & the Musical Experience
(Music Ed faculty & doctoral students)

¹ Any changes related to due dates for assignments or exam dates will be communicated to students via the email address provided in Northwestern's online system. Students are responsible for ensuring this information is up-to-date. If you have questions, contact the IT Help Desk at (847) 491-HELP.

² Though there are a certain number of topics (i.e., specific research designs) that have been pre-selected as necessary to cover, from the 4th week of the quarter on, additional topics will be largely determined by the interests of individual class members and knowledge required to complete the proposed research projects.

Grading:

- 30% - reading assigned materials, preparation of questions/comments, and class participation
- 30% - three short papers evaluating selected research studies
- 40% - Final Project

Course grades will be assigned according to the following scale:

92.01 – 100	= A	78 – 79.99	= C+
90 – 92	= A-	72.01 – 77.99	= C
88 – 89.99	= B+	70 – 72	= C-
82.01 – 87.99	= B	60–69.99	= D
80 – 82	= B-	< 60	= F

Final Project: Each student will be required to complete a small research project – including data collection – during the course of the quarter (40% of grade). The project will be submitted in written form (15 to 20 pages) *and* an oral presentation of the research will be made to members of the Center for the Study of Education and the Musical Experience (see date & time of this required session in the Schedule of Assignments section of this syllabus). The paper/presentation must include an introduction (background, need for the study, significance, assumptions, etc.), a clear statement of the Research Question(s), the design & method of data collection used (with justification), and data analysis & interpretation. The written version of the project must include an annotated bibliography (minimum of 18 relevant sources) with citations and references listed in APA format.

Attendance: MANDATORY ... period!! Though strongly discouraged, a single excused absence will be considered. For each additional absence, half a letter grade will be deducted from the course grade.

Scholastic Dishonesty: the University expects every student to maintain a high standard of individual integrity for work done. Scholastic dishonesty is a serious offence which includes, but is not limited to, cheating on a test or other class work, plagiarism (the appropriation of another's work and the unauthorized incorporation of that work in one's own work), and collusion (the unauthorized collaboration with another person in preparing college work offered for credit). In cases of scholastic dishonesty, Dr. Lipscomb will initiate disciplinary proceedings against the student. Any student caught cheating on an exam or project will receive a "0." It's not worth the risk—don't do it!

Books for Reference:

- Abeles, H.F., Hoffer, C.R., & Klotman, R.H. (1994). *Foundations of Music Education*, 2nd ed. Wadsworth. ISBN: 0028700112
- Boyle, D.J. & Radocy, R.E. (1987). *Measurement and Evaluation of Musical Experiences*. Wadsworth. ISBN: 0028703006
- Colwell, R. (Ed.)(1992). *Handbook of Research in Music Teaching and Learning*. Wadsworth. ISBN: 0028705017
- Colwell, R. & Richardson, C.P. (Eds.)(2002). *New Handbook of Research in Music Teaching and Learning*. Oxford University Press. ISBN: 0195138848
- Kerlinger, F.N. (1986). *Foundations of Behavioral Research*, 3rd edition. NY: Holt, Rinehart, & Winston.
- Kruskal, J.B., & Wish, M. (1978). *Multidimensional scaling*. Beverly Hills, CA: Sage Publications [ref in Krumhansl, 1990]
- Linton, M. & Gallo, P.S., Jr. (1975). *The Practical Statistician: Simplified Handbook of Statistics*. Monterey, CA: Brooks/Cole Publishing Co. [out of print, but excellent text!]
- Madsen, C.K., Greer, R.D., & Madsen, C.H. (Eds.)(1975). *Research in Music Behavior: Modifying Music Behavior in the Classroom*. Teachers College Press. ISBN: 080772436X
- Madsen, C.K. & Prickett, C.A. (Eds.)(2003). *Applications of Research in Music Behavior*. University of Alabama Press. ISBN: 0817305424
- McMillan, J.H. & Schumacher, S. (1984). *Research in Education: A Conceptual Introduction*. Boston, MA: Little, Brown & Company Limited.

- Minium, E.W., King, B.M., & Bear, G. (1993). *Statistical Reasoning in Psychology and Education*, 3rd edition. NY: John Wiley & Sons, Inc.
- Phelps, R.P., Ferrara, L., & Goolsby, T.W. (Eds.)(1993). *A Guide to Research in Music Education*, 4th ed. Scarecrow Press. ISBN: 0810825368
- Shavelson, R.J. (1988). *Statistical Reasoning for the Behavioural Sciences*, 2nd edition. Boston, MA: Allyn and Bacon, Inc.
- Tuckman, B.W. (1988). *Conducting Educational Research*, 3rd edition (or later). NY: Harcourt Brace Jovanovich, Publishers

Journals devoted to topics relevant to this course:

- *British Journal of Music Education*
- *Bulletin of the Council for Research in Music Education*
- *Contributions to Music Education*
- *Educational Researcher*
- *Journal of Research in Music Education*
- *Journal of Music Therapy*
- *Music Perception*
- *Psychology of Music*
- *Psychomusicology*
- *The Quarterly*
- *Southeastern Journal of Music Education*
- *Update*
- ... and other education research journals

**Pagers & cell phones are disruptive to this class.
ALWAYS turn them off when entering the classroom.**

Music Education Students:

Music Content-Area Standards met: 3A-3H (possible, depending on Research Project)

Illinois Professional Teaching Standards met: 1B, 1D, 1G, 8C, 8D, 8E, 8P, 10E, and 11I