Empirical Methodologies for Music Research
Syllabus

Course Description

This course is intended to introduce music scholars to empirical research methodologies. The philosophical and logical rationale for the scientific approach is presented, including its advantages and disadvantages. It is argued that scientific methods can and should serve as a powerful compliment to humanisitic methodologies and arguments.

This class will be of interest to anyone wishing to develop or enhance their research skills in music. Students will learn how to design and carry out experiments, and how to apply empirical, systematic and statistical techniques to problems in music history, analysis, performance, culture, and other topics. The class is designed specifically to develop practical research skills for music scholars with little or no previous background in empirical methods. The class introduces a number of methods, including descriptive, exploratory and questionnaire methods, field research, correlational and experimental methods, hypothesis testing, theory formation, and other useful research tools and concepts. Students will also learn how to read and critique published empirical research related to music—identifying strengths and weaknesses in individual music-related studies. The tools learned by students will be applicable to most areas of music scholarship, including performance, music history, music analysis, theory, music psychology, education, semiotics, music sociology & anthropology, cultural policy, and other areas. Finally, the class will address classic ideas in the philosophy of knowledge including postmodern critiques of empiricism. Participants will learn the advantages and disadvantages of both exploratory qualitative methods and formal quantitative methods.

Objectives

The class objectives include the following:

- to communicate the main techniques and concepts in modern empirical research.
- to provide sufficient background so that students will feel confident in pursuing their own empirical research.
- to learn the do's and dont's of designing experiments, assembling questionnaires, running human subjects, and conducting interviews.
- to introduce participants to useful tools for music-related research.
- to provide practical research advice.
- to identify resources for continuing education in empirical musicology.
- to build critical skills when reading empirical research studies—identifying both strengths and weaknesses.
- to stimulate students' creative imaginations in posing and pursuing musical questions.

Class Schedule

Week	Topic
1	The rhetoric of science
	Storytelling
	Prediction
2	The logic of science
	Skepticism
	Induction and deduction
3	The method of science
	Questions, theories, conjectures, and hypotheses
	Generalization
	Reductionism: a method, not a belief
4	Hypothesis testing
	Inviting failure
5–6	Experimental research
	Comparison and control groups
7	Exploratory research
	Correlational studies
8	Explore then test
9	Data
	Data independence.
	Measurement and quantification
	Measurement scales
10	Sampling
	Systematic and randomized sampling.
	Data independence.
11	Statistics
	Randomness
	Probability
	Correlation
	Mean and variance
12	Statistical tests
	The null hypothesis
	Confidence levels
	Statistical significance
	Effect sizes
13–14	Qualitative methods
	Questionnaires
	Free listing and pile sorting
	Interviews
15–16	Review