

NRES776 Rubric for Project 1

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Description

Working with the instructor, students will develop an analysis strategy to examine data relevant to their research area. You will draft a research proposal with research title, background, hypothesis, methods, and expected outcome. Make this project as a research proposal that you are going to apply funding with. You will write a 2-page research proposal for a funding application and deliver a 5-minute presentation to the class.

Guidelines

You could consider including one or more of the following analyses in your report:

- Data visualization
- Descriptive statistics
- Comparison of means
- Correlation

And you could consider one of the following as proposed research methods (we will cover these techniques in lectures):

- Multiple regression
- Generalized linear models
- Mixed-effect models
- Multivariate analyses

Rubric

Dimension	Qualities	Points
Background	Concise background of the research topic, provide importance and/or the gap of knowledge	20
Hypotheses	List 1 - 3 hypothesis that you will be testing in the research question	15
Methods	Details of data collection, data visualization, and statistical methods you are considering using, etc.	20
Oral presentation	Clearly present your project as if you are applying for fundings to support your research project	40
Written report format	Written report in 2 pages and get submitted on time	5

Dimension	Qualities	Points
		TOTAL
		100

Datasets

You are highly encouraged to use your own dataset, so that this project can contribute to your thesis work. You can check with your supervisor about available data or find dataset online. Feel free to come checking with instructors about the suitability of the dataset. Here are some resources to find freely available dataset.

- R palmerpenguins
- Ecological Data Wiki
- Amniote: life history of birds, mammals, and reptiles
- EltonTraits 1.0: Foraging ecology of birds and mammals

Written project example

Yi-Chin (Sunny) Tseng. 2018. Automatic Bird Sound Detection in Audio by Spectral Features.