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Research methods & statistics for psychology: OER course packet

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Research Methods & Statistics for Psychology - OER course packet

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Objective: To transform PSYC 200 (Research Methods & Statistics) into a fully no-cost, open access course for students. Secondary goals are to teach computational reproducibility and create teaching materials that can be shared among colleagues teaching similar courses at Haverford and across the globe.

Technology access assumptions: For the 2020-21 academic year it was assumed that students had their own computer (Mac or Windows) so that they could freely install jamovi, the statistics software used in this class. However, moving forward (2021-22 academic year), jamovi will be available on Haverford College lab computers so there is not the expectation that students have their own computers.

Context: This work was conducted during 2020-21 ([syllabus here](#) ⇒), when this course was taught remotely. In addition to open access goals, these materials were developed while keeping asynchronous vs. synchronous learning in mind.

Resources created and curated:

1. Video lectures were developed for most of the research methods topics for the course and all of the statistical concepts. These are all publicly available on [YouTube](#) ⇒
 - A stand-alone module on Open Science is available as a separate playlist on [Youtube](#) ⇒ (these videos are also included in the full list linked above)
2. Adoption of open access statistical software [jamovi](#) ⇒
 - jamovi is built on R but overlays a point-and-click user interface that makes it very accessible to students (and others) with no past experience using statistical software. Because it generates R code, it provides a bridge to users who may want to learn R in the future.
 - Students were provided with [video tutorials on using jamovi](#) ⇒ from [datalab.cc](#) ⇒
 - An open access textbook [Learning Statistics with Jamovi \(Navarro & Foxcroft, 2019\)](#) ⇒ was also provided to students

3. Additional open access textbooks were assigned

- *Research Methods in Psychology* (Jhangiana et al., 2019) ⇒
- *An Introduction To Psychological Statistics* (Foster et al., 2018) ⇒

4. Open Stats Lab (OSL)

- Students practiced performing statistical analysis using activities from **Open Stats Lab** ⇒ OSL provides open datasets from published open access journal articles, and students learn how to do data analysis by computationally reproducing the results reported on those articles.
- The activities developed by OSL are for data analysis in SPSS or R, so I created **instructions for students to do the OSL activities in jamovi** ⇒

5. Open Science Framework (OSF)

- To encourage students to become familiar with systems designed for researchers to share materials/data, the **Open Science Framework** ⇒ was used as the course management platform.