

## Instructions for Assignments

### Brief Lab Reports

The purpose of the lab reports is to give you some additional practice writing about psychometric analyses, forcing you to apply concepts discussed in class and express them in writing, as well as to give you credit for attending and paying attention. *Length:* 5-7 sentences total. *Format:* Use report form available from the class website at <http://web.pdx.edu/~newsomj/pmclass> or the Canvas class site <https://canvas.pdx.edu/courses/97344>. Please submit this online through the Canvas site. I do not expect you to spend much more than 15 minutes on these.

### Psychometric Projects

There will be two small projects. For both, you will develop a measure, collect the data (online), conduct psychometric analyses, and then write up the results in a brief scientific report. The first project will be to develop a brief 10-item attitude, personality, or symptomatology measure. Use at least a 5-option Likert-style response format (e.g., agreement, frequency) for this measure. The second project will be to develop a 10-item knowledge or ability test, which should have one correct response for each item. In addition to the 10 test questions for the second project, you will need to add one binary item at the beginning that you can use to examine group bias. The binary question should be something on which you think abilities will differ, which might include marital status, political party, or something similar (you will need to make sure you have a minimum of 10 individuals from each group). For each project, you will construct a measure and use the Qualtrics online system to collect responses from at least 30 people.

*Data collection.* Begin thinking about your topics immediately. The idea for each should be justifiable according to the psychology or education literature. Then begin writing some questions based on similar examples used in class. [Important] Send a draft of the questions to me for approval via email before collecting any data. You will then program the survey into Qualtrics/XM (<http://go.pdx.edu/survey>) and invite some people to respond (classmates, family, friends are ok). I will give you an introduction to Qualtrics/XM but you can also look at this video: <https://www.youtube.com/watch?v=xJlhd5LmIYw>.

General Qualtrics instructions from the PSU Website:

Create a Survey with Qualtrics

- Navigate to [portlandstate.qualtrics.com](http://portlandstate.qualtrics.com).
- In the Welcome to XM column, under Recently visited, select Create a new project.
- Select Survey.
- Build your survey by adding accessible question types and selecting a high contrast color palette.
- Review the following resources to ensure that your survey is accessible and usable to all:
  - [Creating Accessible Documents and Forms](#)
  - [Qualtrics Survey Accessibility](#)

*Analysis.* When you have a sufficient sample size, download your data and do the analyses. The analyses for the attitude or personality measure will consist of descriptive statistics, inter-item correlations, item-total statistics, and Cronbach's alpha. The analyses for the knowledge or ability test will consist of descriptive statistics, item difficulty, and item bias analyses.

*Write-up.* Write-up the purpose and justification for the project, the analyses, and conclusions using the following **required sections indicated with headings** (with approximate lengths): *Introduction* (one paragraph), *Method* including an *Analysis Overview* subheading (two paragraphs), *Results* (two paragraphs), and *Discussion* (one paragraph). Include one *APA formatted table* with descriptive statistics (mean or percent correct, standard deviation, skewness, kurtosis), one table with item statistics (attitude/personality: corrected inter-item correlations, alpha-if-item-deleted; ability/knowledge test: item difficulty, item discrimination, group differences of each), and an *appendix with full question wording of all items*.

*Length and format.* Papers should be approximately 4 pages long (not including tables, appendix, and references), double-spaced, using 1" margins, with 10-to-12-point font. Each paper should not be less than 3 pages long nor more than 5 pages long. Please turn in a hard copy the day the assignment is due (please see due dates on the syllabus). Use APA format style for writing style rules, citations, tables, and references

(include a list of all references cited at the end). The *Publication Manual of the American Psychological Association, 7th Edition*, or online sites, such as <https://owl.english.purdue.edu/owl/resource/560/01/>, will provide most of what you need to know. Please do not include cover pages, covers, or bindings—just staple the pages. (Superficial appearances impact my grading much less than high quality content, so spend your time on the content). The paper should be all narrative text, without tables, figures, or bulleted points.

*Social science approach.* Write your paper in a scientific style, which includes objective/neutral treatment of topics with assertions of fact or hypotheses that are supported by evidence or theory rather than personal opinion. Use concise and precise wording; do not use of first- and second-person voice and avoid poetic language (e.g., similes, alliterations, exaggerative or overly descriptive adjectives). Avoid quotations or use them very sparingly.

*Academic integrity.* **All papers should be written in your own words.** If used, any direct quotes should include quotation marks, reference citation, and page number. Any phrases or sentences copied from another source without these notations will be considered plagiarism. It is best to avoid using AI (ChatGPT etc). AI is known to sometimes plagiarize and make up sources, and that means if you turn in assignments or quizzes when you have used AI, you also may have plagiarized or invented sources whether you intended to or not.

*Citations.* For the psychometric projects, include academic citations in the text to back up assertions with empirical evidence from research studies or ideas from scientific theories. You will not need many citations—perhaps one or two each in your introduction paragraph, analysis overview, and discussion. When referring to any cutoffs or other analysis-related references, be sure to cite the original source, not the textbook or my class lectures. We will be writing in a professional academic style, so citations are nearly always to academic published research articles or books. In a typical paragraph from a journal article or chapter, there will only be two or three statements about evidence or theory that require supporting citations. For any particular statement, only one or two citations are usually needed. If you are unsure how often citations should be used, take a look at a couple of examples from academic journal articles. When citing a source in your written text, use APA conventions, such as “Newsom (2024) has demonstrated sophisticated methods of analyzing longitudinal data” or “negative social exchanges have been found to be associated with poorer health when they persist over a period of time, as indicated by one study (Newsom et al., 2008).”

## Grading

*Brief lab reports* (10 points each). I will give up to 10 points for the report based on overall impressions of effort. Ten points will only be given if the report is complete, accurate, carefully thought out, professional, and well-written. I will assign fewer points based on my evaluation of the material as A (9 points), B (8 points), C (7 points), or less for poorer work. I expect to give 8-10 points to everyone who completes the report.

*Psychometric projects* (100 points each). 18 points for the each of the required sections and subsections (Introduction, Method, Analysis Overview, Results, Discussion), 5 points for the table, and 5 points for the appendix. Full points will only be given if the section is complete, accurate, carefully thought out, professional, and well-written. I will assign points for the sections based on my evaluation of the material as A (16-18 points), B (15-17 points), C (12-14 points), or less for poorer work.

*Late paper policy:* Late papers will only be accepted without penalty if there is an extenuating circumstance, such as a family emergency (e.g., death in the family), you have a serious health issue (e.g., flu, hospitalization, or pneumonia documented by the student health center or a doctor), or the birth of your child. Otherwise, 2 points (20%) for the lab reports or 10 points (10%) for psychometric projects will be deducted from the grade for the paper for each day it is late. Please let me know as soon as possible if you will need to turn in a paper late. If you must miss a lab for any reason, you may make it up on your own by acquiring the lab instructions from me (via email) and turning in the lab write-up on time. Otherwise, without one of the above extenuating circumstances, points will be deducted for each day the assignment is late.