**Practical guide for exam papers in Stats 2**

**Introduction**

The purpose of this writing guide is to give you some tips on how to organize your exam paper. Some tips are about writing style and argumentation, while others are about how to best present your methodology and empirical results. The main ambition of the writing guide is to provide you with tools so that you can spend as much space as possible on the core elements of your paper: (1) operationalization, (2) methodology and (3) analysis.

**What is the task - and what is it not?**

**Background, theory, and Hypotheses**

You do not present a proper theoretical argument. But you will need to specify directional hypotheses that you can test empirically – similar to the way we discussed in the lecture. A directional hypothesis postulates a negative or positive relationship between the values of two variables. For example, the following hypothesis is not directional: "There is a relationship between social class and liking popcorn". A directional hypothesis could be: "People from the working class eat more popcorn than people from the middle class".

You can use a figure like a Directed Acyclical Graph (DAG) to illustrate your hypothesis.

**Analysis/presentation of results**

- Operationalization: Describe how you interpret/understand and, if applicable, recode your variables, as well as the theoretical and practical circumstances that motivate your choices. The reader should be able to follow your decisions from "raw data" to fully coded "analysis data". If you (re)code complex variables, such as social classes based on e.g. job titles or ISCO codes, you must describe all "intermediate calculations" (e.g. how you handle self-employed, middle managers and possibly people outside the labor market). And remember to give your variables easy-to-understand names (i.e. not something like "kl\_z005").

- The analysis of the empirical results should always be presented in the section where you present the results. Do not divide the analysis into a descriptive part ("Table 1 shows numbers x and numbers y") and an interpretative part ("I interpret the results in section z below"). Keep the entire analysis in one paragraph.

Tables and figures

- It's a good idea to consolidate important information in your tables so that you don't need more tables or more space in the text to report intermediate calculations and test statistics (upside = more space for analysis and interpretation). Here is a regression table showing the causal effect of reading different news articles on perceptions of discrimination (see Stats II lesson 6).

Table 1. The causal effect of reading news articles on perceived discrimination

| Statistical models | | |
| --- | --- | --- |
|  | **OLS** | **Z-OLS** |
| Intercept (Venus control) | 1.979\*\*\* | -0.171\* |
|  | (0.067) | (0.074) |
| Article on discrimination | 0.239\* | 0.264\* |
|  | (0.107) | (0.118) |
| Article on integration | 0.137 | 0.151 |
|  | (0.118) | (0.130) |
| R2 | 0.012 | 0.012 |
| Num. obs. | 1085 | 1085 |
| \*\*\*p < 0.001; \*\*p < 0.01; \*p < 0.05 | | |

- The cell marked in yellow is used as an illustrative example. Here you can see the OLS coefficient (to three decimal places) for respondents who read the news article about discrimination. Compared to the reference group (who read an article about the planet Venus), the effect of reading about discrimination is an increase of 0.264 standard deviations in perceived discrimination. Numbers in brackets (0.118) indicate standard errors and \* indicates significance levels.

- The R function that spits out table 1 as a Word table is as follows:

A computer screen shot of a code

Description automatically generated

- The table summarizes more important information: Num. obs. (number of observations) and the R2 value for the entire table (three decimal places). You don't need to focus too much on these "goodness of fit" statistics; the primary way you test your hypotheses is by interpreting regression coefficients (and their standard errors).

- Instead of a regression table, you can also present your results as a coefficient plot (see Stats II lesson 6):

Figure 1. The causal effect of reading news articles on perceived discriminationChart

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- If you decide to use a coefficient plot, be sure to include information about N (the number of observations) and the R2 value for the entire table (three decimal places) in a note to the plot.

- The R code that produces Figure 1 is as follows (see also the Stats II lecture slides):Text

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**Writing/formatting**

- Give all your variables and variable categories easy-to-understand and logical names. Do not refer to variables and variable categories with abbreviations or implied R-codes. For example, "gthorpe\_5" doesn't make much sense to a reader, but "Goldthorpe's five class schema" does.

- Don't copy-paste tables/data from R. It's rarely pretty or easy to read (and often comes with a lot of decimals).

- All tables/figures should have an easy-to-understand title and should be numbered.

- Avoid footnotes. Everything important should be in the main text.

- Do not include anything important in appendices. Remember that reviewers generally do not read appendices, so everything important should be included in the main text.

- Meta-text is important. Meta-text is text that summarizes results and ties sections together. For example, "In section 1, I showed that people in higher class positions are less likely to eat popcorn than people in lower class positions. In the next section, I will use the abnormally high price of corn oil to explain why this is the case".

- Avoid normative language ("my study shows that capitalism is evil and alienating"). You can be normative in your free time, but not in your professional life as a sociological paper writer. You should also not be normative when putting your results into perspective (unless you are explicitly asked to do so).

**Conclusion/discussion**

- Make sure you answer the problem statement clearly and comprehensively. Do this before launching into a general discussion/perspective. The purpose of your assignment is first and foremost to answer the problem statement set by the teacher.

**Grammar and language**

- Get a study group buddy to check your assignment for spelling and typos. You won't spot the mistakes until right after you've handed in your assignment (that goes for all of us)

- And finally: No one expects perfection. The purpose of an exam paper is to learn something new and important. It also doesn't hurt that the writing process is fun. Enjoy your work

Merlin