

MEVIT4811 exam assignment spring 2026

There are two parts in this exam. In the first part, your task will be to analyze data from PEW research center's "Wave 152 American Trends Panel", with a nationally representative panel of randomly selected US adults (N=5410). The survey was conducted in August 2024 and includes questions about two topics: (1) what American citizens think of artificial intelligence (AI); and (2) a few questions about driving and "road rage"¹.

PART 1 consists of three tasks (each with a few sub-tasks) related to the PEW dataset.

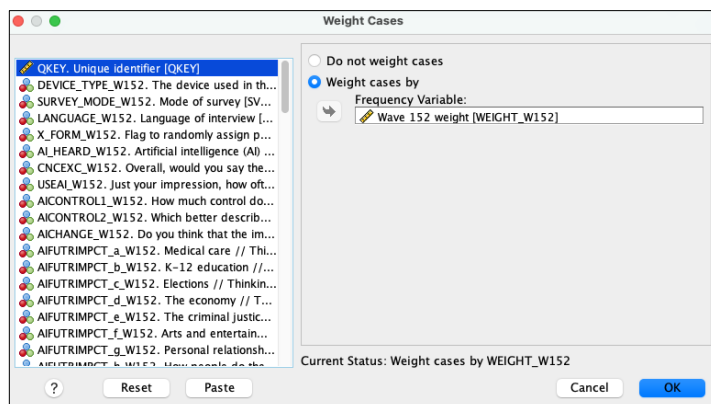
In PART 2 of the exam, we will ask you to outline a plan for a quantitative content analysis.

Before starting, we suggest you read through the entire test and then take a little time to familiarize yourself with the dataset. *Also pay close attention to what low and high values on Likert-scales indicate on the different variables.* Feel free to recode variables if you find that it makes it easier to interpret results.

There are no requirements for how many pages your exam-report needs to be.

About the PEW dataset: weight cases, the questionnaire, tips

Weight cases. Before proceeding, make sure the data are weighted. In SPSS, click on "Data" in the top menu, scroll down to "Weight Cases" and make sure the Current Status is "Weight cases by WEIGHT_W152".



If the Current Status is "Do not weight cases," find the variable "Wave 152 Weight" in bottom of the variable list and click it into the "Weight cases by" field and press OK. *Note: you will **not** get*

¹ <https://www.pewresearch.org/dataset/american-trends-panel-wave-152/>. If you click on the "Download dataset" on this URL, you get the sav-file and additional files about Methodology and the questionnaire. You don't need to read these to complete the exam.

a lower grade if you happen to work with unweighted data (you will only get slightly different results).

This weight has been calculated by PEW to compensate for biases in the sample compared to the population. No need to reflect on this in your exam-report.

Questionnaire. The text in the label-column in the sav-file (SPSS-file) should be sufficiently comprehensive to understand each variable.

Variables we have created. The dataset includes one variable that we have created based on the existing PEW-variables: AICONCERN_mean. This variable represents the average score derived from the items:

- AICONCERN_a_W152
- AICONCERN_b_W152
- AICONCERN_c_W152
- AICONCERN_d_W152
- AICONCERN_e_W152
- AICONCERN_f_W152
- AICONCERN_g_W152

Each of these items is measured with a 5-point ordinal scale. A reliability analysis indicated a strong correlation among these variables, supporting the assumption that they collectively reflect a common underlying construct (Cronbach's $\alpha = .87$). We will thus treat AICONCERN_mean as a ratio-level measure of the overall level of concern respondents have toward AI. *Pay attention to what low and high scores on this new variable means* (follows from how the individual items are coded).

We have also created four dichotomized variables with values of 0 and 1:

- TRSTAIPRS_dichotomized
- Age_youngadult
- Gender_dichotomized (we here recoded “in some other way” from the original gender-variable as missing)
- Rep_rep_lean (Being/leaning Republican)

AND FINALLY: THE ACTUAL TASKS IN THIS EXAM. Best of luck to you all ☺

PART 1: PEW Wave 152 American Trends Panel

Task 1 includes four subtasks to help to get you warmed up

Task 1 counts for 20% of the grade.

1a) In your exam-report, include *one* frequency table with all of the following demographic variables: Age category, Gender, Education level category 2, Income tier 3-way, Party preference. Include only percentages.

Remember to set up the table in word-processing software of your choice (don't just paste a screenshot or the unedited table from SPSS).

1b) In your exam-report, report the percentage shares for each answer category on the variable TRSTAIPRS_W152 by Age category, Gender, Education level category 2, and Party summary. Briefly comment on the main patterns shown.

Again, remember to set up the table(s) in word-processing software of your (don't just paste a screenshot or the unedited table from SPSS).

1c) Create a graph that shows how often respondents think they interact with AI (variable name: USEAI_W152) and include this in your exam-report. Explain why you chose this type of graph.

1d) Create *one* bar chart that shows the percentage shares who have responded “Extremely likely” or “Very likely” on the four FUTRAI-items (one bar for each item). You can create the bar chart in SPSS or Excel. Make sure to edit the graph so that it clearly conveys the results. Include the graph in your report. Briefly comment upon what the bar chart indicates.

Task 2 tests your ability to decide on and conduct statistical tests and interpret their results

Task 2 counts for 30% of the grade.

You will now be presented with two hypotheses and one research question. For each of these, you need to:

- Locate the appropriate variable(s) to test the hypothesis
- Explain what the correct statistical test is for the hypothesis
- Conduct the analysis
- Report and interpret the results

H1: Age is associated with the amount of control people think they have in whether artificial intelligence (AI) is used in their life. (use the age-variable “F_AGE CAT”)

H2: Party preference is associated with overall level of concern toward AI.

RQ: Does gender, younger age, being/leaning republican, and thinking AI will get to the point where respondents would trust it to make important decision for them, predict overall concern toward AI?

Tip for RQ: you might want to use the dichotomized versions of the predictor variables (with values of 0 and 1).

Task 3 tests your ability to work independently with the dataset and decide on appropriate statistical tests.

Task 3 counts for 30% of the grade.

Develop one research question or hypothesis based on the Pew dataset and test it using an appropriate statistical analysis in SPSS. Your analysis should examine whether one outcome variable is associated with one or more explanatory variables.

You may choose the statistical method yourself, but your choice must fit the level of measurement of the variables. *Please do not re-use one of the analyses from Task 2, though you may re-use a statistical test as long as you have a different combination of variables.* Your options here include e.g., binary logistic regression (see Pallant) in addition to tests we have covered in class. In your answer, please:

- Present the research question or hypothesis
- Explain what the correct statistical test is for this question or hypothesis
- Conduct the analysis
- Report and interpret the results

You are free to choose among all the variables, also those that have very little to do with media and communication studies.

PART 2: Quantitative content analysis

Part 2 counts for 20% of the grade.

You are tasked with designing a quantitative content analysis of public social media content, focusing on one of the following topics:

- Framing of technology in AI advice or “tips” videos
- Construction of femininity in the tradwife aesthetic
- Professional news organizations adaptation to social media

Prepare a research plan that encompasses the following components:

- Formulate a research question about your chosen topic that could be answered through a quantitative content analysis. You will need to find a more specific angle on the topic.
- Identify what data material will be analyzed, including which social media platform and the unit of observation (for example one video, one post, one caption, or one comment).
- Identify **four** variables relevant to your research question and write them out as they would appear in a codebook, including the variable name, definition, and coding categories/values.

Tip: Your variables should measure “manifest” content as much as possible – that is, features that can be observed directly in the material – rather than latent qualities that require interpretation.