TASK 1 counts for 25% of the total mark

You are planning a study addressing the overarching question of how minority youth engage with media representations, and how such engagement may work to stimulate democratic inclusion. Your empirical material will be interviews with minority youth in Norway.

You have reviewed some key contributions to the research field and a consequential foundation for your study is the democratic significance of the incorporation of diverse identities in the public sphere and the extent to which these are subjected to public recognition.

Outline the stages of your study from planning the study to writing up and reporting your study. Brinkmann and Kvale’s seven stages of an interview inquiry might help you structure your answer and what to address in the different stages.

*Note: This task includes the research question posed by Torgeir Nærland in the article “Altogether now? Symbolic recognition, musical media events and the forging of civic bonds among minority youth in Norway”. European Journal of Cultural Studies 22(1), 78-94. You will of course not be assessed in terms of how closely your research design aligns with Nærland’s actual study. Neither will you be assessed in terms of your familiarity with the research field of minorities and media use.*

SENSORVEILEDNING

Students might very well be able to provide a comprehensive answer without rigorously following Brinkmann and Kvale's seven stages. Evaluate the quality of the answers more than merely ability to reiterate the seven stages.

Brinkmann and Kvale’s seven stages summarized:

(i) Thematising: Clarify the why and what and purpose of the study. Including obtaining knowledge of the subject matter/conceptual and theoretical understanding of the phenomena.

(ii) Designing: Considering all the seven stages before interviewing. Ensuring that the intended knowledge will be obtained. Keeping end-point in sight, considering time and resources. How many interviewees and how to recruit.

(iii) Interviewing: conducting the interviews, interview guide, from research questions to questions in the interview guide, types of questions.

(iv) Transcribing: Prepare for analysis by transcribing from oral speech to written text
(v) Analysing: Purpose and topic of investigation → decide on how to analyse appropriately. Analysing focusing on meaning; analysing focusing on language; theoretical analysis – theoretically informed reading and analysis of interviews

(vi) Verifying: Assess and ensure validity, reliability and generalizability of the interview findings.

(vii) Reporting: Communicate the findings of the study and the methods applied in a systematic and scientific way → a readable product (introduction method, results, discussion)

**TASK 2 counts for 15% of the total mark**

Describe how one can enhance the validity of a qualitative interview study throughout the research process; that is, in (a) designing and conducting your interview study; (b) analyzing your data; and (c) writing up your findings.

**SENSORVEILEDNING**

Discussed by Brinkmann and Kvale in chapter 15, from which below points are extracted. Yet, as with task 1, assess the overall soundness and quality of the answer, rather than merely the ability to reiterate points from book.

Validity in general as the degree to which a study investigates what it is intended to investigate. Validation permeates the entire research process (too late to think of only at the stage of analyzing and writing up): quality control throughout the complete process.

Designing and conducting: The logic and soundness of research questions in the context of theory and extant literature. Considering that an interview-study will in fact enable you to investigate what you intend to investigate. Preparing interview guide: how do operationalize interview themes and questions so that you actually address research questions. In the actual interview: careful consideration of the meaning of what is said.

Analyzing: Accurately analyzing interview data. Question whether the logic of interpretations is sound. Looking for negative evidence and rival explanations. Ensure analysis reflects all relevant themes in the data. Theoretically interpreting findings (with extant theory, concepts and literature also acting as validity checks).

Writing up findings: whether report gives a valid account of main findings. Appropriate use of quotes, how these represents different interview-subjects, and the researcher’s own interpretation and contextualization of these quotes. Ensure transparency and provide sufficient information for
readers to assess the validity of the results. Final check that all parts of report are coherent and that study investigates what it intended to investigate.

**TASK 3 includes five sub-tasks that together count for 20% of the total mark**

3.1) Define and explain what is meant by probability sampling.

**SENSORVEILEDNING TASK 3.1)**

When conducting research, we usually cannot obtain data from everyone. Instead we collect data from a sample: a small subset of the population. Probability sampling procedures: where the determination of who or what provides data is determined by a random process.

In probability samples, all units from the population have a known probability of being selected. Also means that before selecting sample, the population must be defined appropriately. A sampling frame refers to a list of everybody in the population. Plus-points for also mentioning simple random sampling; systematic random sampling; stratified random sampling and cluster sampling.

3.2) Define and explain what is meant by inferential statistics.

**SENSORVEILEDNING TASK 3.2)**

Statistical tests used to draw inferences about differences between groups or relationships between variables within a population. We collect data from a smaller subset of the population (sample) and use these data to infer things about the population as a whole.

3.3) If the mean (M) of a variable has a large standard deviation (SD) what does that say about the distribution of values on the variable and the fit of mean to the data?

**SENSORVEILEDNING TASK 3.3)**

A large standard deviation (relative to the value of the mean itself) indicates that the data points are distant from the mean (i.e. the mean is a poor fit of the data)

3.4) Identify the correct answer and explain why this is correct:

What does a significant test statistic tell us?

a) The null hypothesis is false
b) There is an important effect
c) That the test statistic is larger than we would expect if there were no effect in the population.

SENSORVEILEDNING TASK 3.4)

Right answer is c. In null hypothesis testing we calculate the likelihood of the sample result if the null hypothesis were true. This probability is called the probability value (p value). A significant test statistic means we have a low p value: the sample result would be unlikely if the null hypothesis were true. This leads to the rejection of the null hypothesis (yet, we cannot claim that the null hypothesis is false as a) suggests). A high p value means that the sample result would be likely if the null hypothesis were true. This leads to the retention of the null hypothesis.

3.5) Identify the correct answer and explain why this is correct:

Why is the standard error important?

a) It tells us the precise value of the variance within the population
b) It gives you a measure of how well your sample parameter represents the population value
c) It is unaffected by outliers
d) It is unaffected by the distribution of scores.

SENSORVEILEDNING TASK 3.5)

Right answer is b. The standard deviation of the sampling distribution of a statistic, for example the mean. Hence tells us how much variability there is in this statistic across samples from the same population. It is hence a measure of how representative a sample is likely to be of the population. A large standard error (relative to the sample mean) means that there is a lot of variability between the means of different samples. The sample we have might not be representative of the population. A small sample standard error indicates that most sample means are similar to the population means. Our sample is likely to be an accurate reflection of the population. As we cannot collect numerous samples, we approximate how representative the sample means is of the population mean (students are not expected to include formula in their answer: SD/square-root of N).

TASK 4 counts for 25% of the total mark

When would you use quantitative content analysis as a method? Give examples of at least 4 variables that could be measured in such an analysis. Discuss the measurement levels of these variables, and different types of analyses that can be used for the different levels of measurement.
Plus-points below indicate a very good grade. A correct and simple answer without too much explaining should be considered sufficient for a C or B.

Quantitative content analysis is a relevant method when you need a systematic way for analysing patterns and associations between variables in any type of content.

Plus-points given if student also points to and understands elements from Neuendorf’s definition of content-analysis (though should not be expected to have memorized the definition: scientific method, a priori-design, reliability, validity, generalizability, replicability, hypothesis-testing based on theory).

Students should briefly describe a research topic where content analysis could be a relevant method, and plus points if including research question or hypothesis, and if pointing to the importance of a deducing RQs and Hs from theory and previous research.

When giving examples of variables, plus points if student first points to the importance of conceptualizing selected variables, and next points to how operationalized variables need to match conceptualized variables (internal validity).

Expect relatively simple examples particularly when it comes to types of analyses that can be used for different levels of measurement. A good grade does not require sophisticated and complex examples. Students should correctly discuss the measurement level of their variables and are not expected to include variables of all measurement levels. Students are not expected to go far beyond univariate analysis.

Nominal level variables consisting of a set of categories that are distinct from one another (e.g. ethnicity, religion, social media channel, subjects covered in news-articles) → Mode. Visually represent frequencies e.g. with bar charts. Chi-square for bivariate between two categorical variables.

Median level variables consisting of a set of categories that are rank ordered on some continuum (physical appearance of depicted person if conceptualized and operationalized from e.g. 1. Extremely unattractive to 5. Extremely attractive; level of personal information posted on Facebook if operationalised from e.g. 1. Never to 5. Very frequent) → Median. Range and interquartile range. Visually represent frequencies with e.g. bar charts. (Interval level variables not too common in social sciences, incl. content analysis)

Ratio-level variables consisting of levels represented by numbers that are quantitative or numeric in the ordinary sense + includes a true/meaningful zero-point. Number of words in a message/text unit; number of likes or comments or shares on a Facebook-message. → Mean, standard
deviation, standard error, confidence interval. Plus-points if including bivariate analysis for association between two ratio-level variables. (e.g. Pearson correlation).

**TASK 5 counts for 15% of the total mark**

You have conducted a survey with a representative sample of the Norwegian population on experiences with fake news online. One of the questions asked was whether respondents had ever shared news-articles on social media that they later discovered was invented or “fake news”. Based on the research literature you have reason to believe experience with sharing fake news varies with age, and your null-hypothesis and alternative hypothesis are consequently:

\[ \text{H} \: \text{0: There is no association between age and having shared fake news.} \]
\[ \text{H Alt: There is an association between age and having shared fake news.} \]

a) Explain the principles behind the Chi-square test and why the Chi-square test statistic is appropriate in this case.
b) Interpret and briefly comment upon your results: Can you reject your null-hypothesis? Report required test-statistics and data from the tables below in your answer.
### Have you ever shared a news-article that you later discovered was invented/fake?

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–22</td>
<td></td>
<td>26a</td>
<td>39b</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17,6</td>
<td>47,4</td>
<td>65,0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40,0%</td>
<td>60,0%</td>
<td>100,0%</td>
</tr>
<tr>
<td>23–35</td>
<td></td>
<td>73a</td>
<td>131b</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55,2</td>
<td>148,8</td>
<td>204,0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35,8%</td>
<td>64,2%</td>
<td>100,0%</td>
</tr>
<tr>
<td>36–55</td>
<td></td>
<td>95a</td>
<td>223a</td>
<td>318</td>
</tr>
<tr>
<td></td>
<td></td>
<td>86,0</td>
<td>232,0</td>
<td>318,0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>29,9%</td>
<td>70,1%</td>
<td>100,0%</td>
</tr>
<tr>
<td>56–80</td>
<td></td>
<td>34a</td>
<td>222b</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69,2</td>
<td>186,8</td>
<td>256,0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13,3%</td>
<td>86,7%</td>
<td>100,0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>228</td>
<td>615</td>
<td>843</td>
</tr>
<tr>
<td></td>
<td></td>
<td>228,0</td>
<td>615,0</td>
<td>843,0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27,0%</td>
<td>73,0%</td>
<td>100,0%</td>
</tr>
</tbody>
</table>

Each subscript letter denotes a subset of Have you ever shared a news-article that you later discovered was invented/fake? categories whose column proportions do not differ significantly from each other at the ,05 level.

### Chi-Square Tests

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>39,294a</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>42,195</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>34,704</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>843</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 17,58.
a) The Chi-square test tests whether two variables are independent of each other. If not, we have evidence that the variables are associated in some way. The test is used for categorical data, i.e. when variables are at nominal, dichotomous or ordinal levels of measurement. The test statistics is based on comparing the observed frequencies to the frequencies you might expect to get by chance. In this case we have the age variable as an ordinal level variable and having shared fake news as a dichotomous variable. The Chi-square test is hence an appropriate test statistic to use to test for independence. The Chi-square is compared to the critical value for the selected significance-level and degrees of freedom. If exceeding critical value, null hypothesis about no association can be rejected (SPSS does not report critical value).

b) The null hypothesis can be rejected. The study found a significant association between age and having shared fake news. $X^2 = 39.294; \text{df}=3; p<0.001$. The cross-table shows how age and having shared fake news is associated: among older respondents, fewer report to have shared fake news compared to younger respondents. The percentage who report to have shared fake news decreases between each age-group.