

# **Your Thesis Title May Span for a Maximum of Three Lines on the Cover Page**

Firstname Lastname

---



# **UNIVERSITY OF OSLO**

Master of Science in Assessment, Measurement and Evaluation  
30 credits master thesis

CEMO: Centre for Educational Measurement  
Faculty of Educational Sciences

Spring 2022



## **Popular Abstract**

Maximum half a page. One single paragraph. No indentation. Nunc sed risus diam. Nam vel neque mi. Fusce pretium a erat nec placerat. Proin faucibus finibus aliquet. Phasellus ut felis feugiat, tempus enim eget, ornare neque. Ut magna ante, faucibus eget pellentesque dictum, dapibus sed libero. Integer hendrerit lacus id lacus sodales vehicula. Curabitur orci tortor, condimentum quis velit in, tincidunt convallis turpis. Sed eget auctor est, et aliquet ipsum. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Etiam vel risus eget velit consectetur blandit. Fusce vitae nulla sapien. Vestibulum luctus neque quis risus laoreet, ac faucibus turpis tristique. Nunc a nunc eget odio fringilla tempus.

## **Acknowledgements**

Maecenas vel maximus erat. Vestibulum ac ornare neque. Integer vestibulum elit sem, ac varius turpis dapibus sed. Nulla erat neque, consectetur nec urna pretium, finibus elementum urna. Donec id hendrerit sem. Cras et arcu nunc. Nam dictum lacus vitae lorem luctus ultricies. Suspendisse varius velit quis imperdiet rhoncus. Quisque ut placerat nulla. Cras ut tortor mattis, finibus nisi non, sollicitudin purus. Vestibulum dolor elit, accumsan id ligula eget, lobortis malesuada lorem. Aenean vel maximus justo.

Proin pretium venenatis tortor, id varius turpis semper non. Sed non elit eget purus cursus ultrices et sit amet diam. Morbi vestibulum tortor magna, sed placerat justo condimentum ac. Morbi leo magna, pharetra in neque eget, fringilla aliquam elit. Duis at ultrices ligula. Suspendisse ac ligula in tortor condimentum feugiat. Etiam ut ligula id sapien efficitur malesuada. Sed nec sagittis nisi, nec auctor dolor. Proin viverra feugiat gravida. Quisque venenatis a risus non venenatis.

## **Your Thesis Title May Span for a Maximum of Three Lines on the Cover Page**

Single paragraph. No indentation. Maximum 250 words. Phasellus egestas purus et sem porta venenatis. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia curae; Sed pulvinar leo ut posuere sollicitudin. Integer sem tortor, tristique id nisl sed, aliquam pharetra tortor. Integer tortor purus, facilisis mollis tortor nec, sodales bibendum urna. Nulla quam enim, feugiat semper neque ut, sagittis ullamcorper urna. Donec et iaculis mi. Etiam congue tellus ut felis viverra, ac mollis eros venenatis. Vivamus eget ante at eros pulvinar tempor nec at arcu. Donec et vestibulum nunc. Fusce sed metus nisi. In leo turpis, mattis a tincidunt luctus, pellentesque et velit. Ut tortor mi, rutrum nec fringilla vitae, maximus et ligula. Vestibulum finibus semper ornare.

*Keywords:* keyword 1, keyword 2, keyword 3

Maecenas nec ultricies tellus. Suspendisse tristique a ante non fringilla. Morbi et sem dignissim, aliquet leo vel, scelerisque purus. Sed iaculis, est vel molestie consequat, erat elit venenatis arcu, a tempor libero diam sit amet velit. Donec ut vestibulum lectus, ut fermentum turpis. Etiam rutrum eros a sem commodo consequat (Lüdtke et al., 2008).

### **Level 2 Heading**

Suspendisse varius iaculis sem, vel congue augue vulputate in. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia curae; Nullam vitae purus eget purus eleifend gravida finibus eget erat. Quisque eget tincidunt dolor. In ac lectus at lectus cursus scelerisque non a libero.

Donec posuere neque vitae sapien aliquet maximus. Phasellus malesuada, lectus eget molestie facilisis, mauris nunc congue risus, in hendrerit magna dolor sit amet eros. Phasellus nec elit nibh. Praesent eget leo id enim blandit elementum (Marsh et al., 2009).

### **Level 3 Heading**

Marsh et al. (2009) nulla finibus dignissim ex vitae mattis. Phasellus ligula sapien, auctor vel finibus non, fermentum a diam. Ut commodo leo porttitor libero porta, ac accumsan

ante egestas. Vivamus in sem eu felis interdum vulputate. Vivamus ut orci libero.

Fusce et faucibus dolor. Aliquam erat volutpat. Quisque sagittis justo vitae dui posuere, a aliquet nunc ornare. Praesent tempor a est ac mattis. Interdum et malesuada fames ac ante ipsum primis in faucibus. Proin elementum luctus placerat. Sed rhoncus leo in magna cursus egestas.

**Level 4 Heading.** Fusce at sem in est varius consequat. Donec magna arcu, placerat non rhoncus id, ultricies at tortor. Curabitur id sem ac lectus pretium dignissim. Etiam faucibus, dolor ac egestas efficitur, dolor arcu posuere tellus, eget elementum est velit eget risus. Suspendisse potenti.

**Level 4 Heading.** Praesent eu ornare ipsum. Sed mauris tortor, pretium dignissim pellentesque et, pulvinar in augue. Nunc maximus risus diam, in rhoncus augue placerat vitae. Etiam libero quam, mattis ut nulla sed, pellentesque iaculis neque. Vestibulum consectetur ex ipsum, quis fermentum mauris venenatis sit amet.

### ***Level 3 Heading***

Nullam id commodo turpis. Pellentesque sed fermentum quam. Aenean ut massa id quam pretium blandit ac in ex. Morbi ultricies tellus magna. Quisque ornare, ligula at tincidunt finibus, justo mauris tristique lectus, at bibendum odio sapien sed ante. Curabitur ultrices pulvinar magna quis feugiat.

## **Method**

Aenean egestas, magna vitae venenatis tincidunt, lacus nunc suscipit mauris, eu tincidunt enim nulla et leo. Ut tincidunt ante at mauris semper hendrerit. Nam consectetur aliquet est sit amet accumsan. Pellentesque porta nisl sapien. Ut vel vulputate est.

## **Sample**

Mauris eu efficitur lectus, id suscipit enim. Phasellus justo nunc, gravida sed pulvinar nec, hendrerit quis orci. Nulla quis interdum augue. Vestibulum augue orci, porta nec erat vitae, bibendum ullamcorper massa.

## Measures

Suspendisse potenti. Quisque nec interdum nunc. Curabitur tempus nibh non magna porttitor sodales. Donec nec lacus nibh. Phasellus pretium vehicula pretium. In vitae libero tempor, ullamcorper massa nec, ultrices nunc.

## Statistical Analysis

Phasellus eget lorem vitae ligula ultrices scelerisque. Curabitur lacinia, magna in interdum faucibus, nibh magna vestibulum risus, eget ornare justo ante in ex. Vivamus ullamcorper commodo erat, a iaculis tortor congue scelerisque.

$$E = mc^2 \tag{1}$$

Curabitur viverra velit lacus, sed hendrerit augue dictum egestas. Suspendisse ipsum sem, molestie tempus nulla vitae, faucibus rhoncus massa. Maecenas tempus, eros vel tempus laoreet, risus tortor ultrices diam, a blandit nisl velit non purus. Etiam id rutrum mi (see Equation 1).

## Results

Donec vitae efficitur sapien. Sed nisl ante, rutrum ac risus nec, mattis facilisis mauris. Quisque eu faucibus nisi, at viverra tortor. Proin semper velit eu mauris vestibulum faucibus. Sed venenatis risus id est pretium pretium (see ??).

Nulla condimentum nec velit sed mattis. Duis congue ut erat eget malesuada. Proin eget lorem sodales, varius dolor ut, vestibulum arcu. Praesent risus enim, hendrerit ut malesuada ut, vulputate posuere lectus.

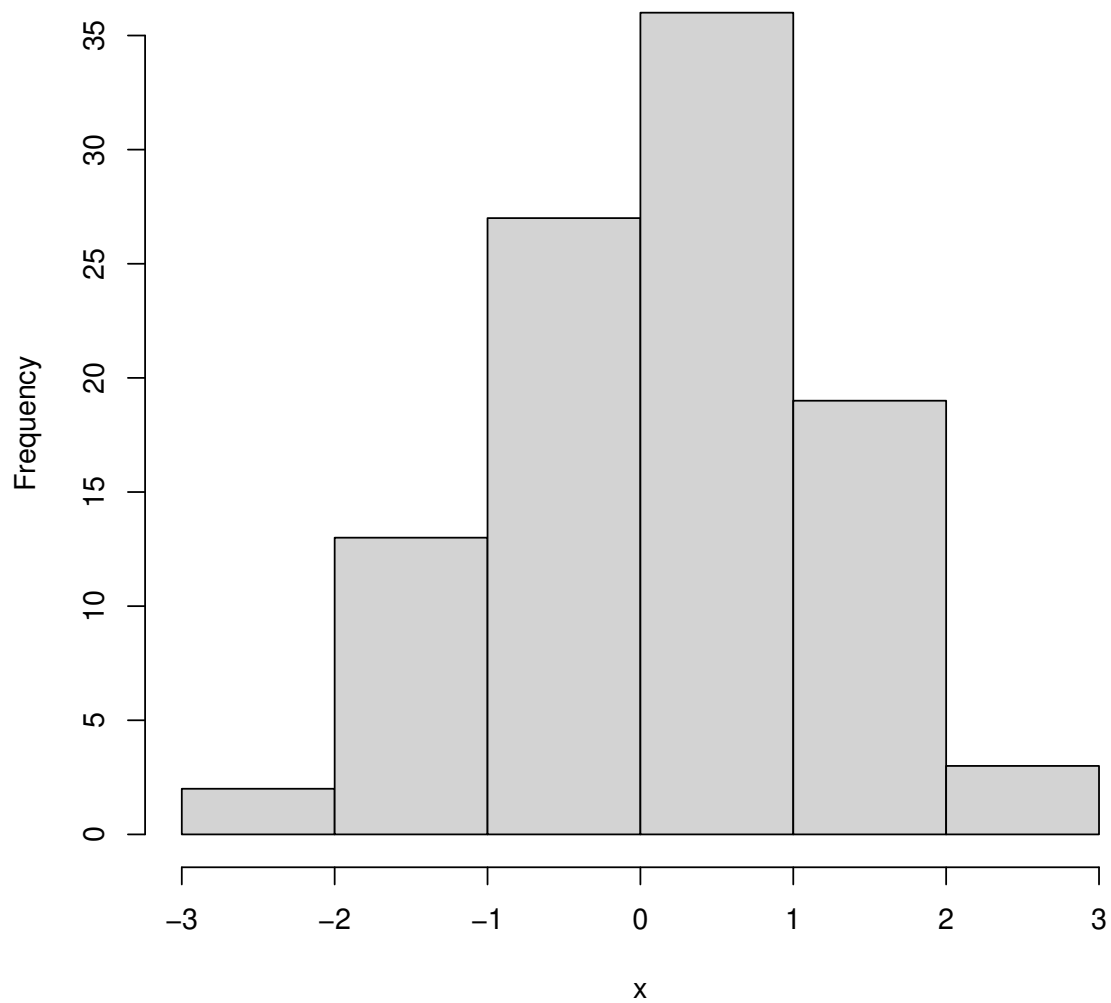
## A Generic Level 2 Heading

Suspendisse laoreet, tortor nec interdum malesuada, risus tortor malesuada leo, sit amet blandit ligula turpis vitae lectus. Nullam pulvinar sollicitudin arcu ut sagittis. Vestibulum mattis justo vel nibh ultricies dictum. Ut rhoncus tortor vitae quam viverra congue. Morbi lobortis tortor et lacinia vestibulum (see Figure 1).

Aenean cursus fringilla maximus. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer semper est velit, nec hendrerit nisl convallis ut. Donec ornare leo quis egestas

**Figure 1**

*Histogram of 100 Random Numbers*



*Note.* This histogram depicts the frequency distribution of 100 random numbers drawn from the standard normal distribution  $N(0, 1)$  using seed 2020.



elementum.

## **Another Generic Level 2 Heading**

Fusce quis erat nec magna porta ornare. Praesent efficitur sapien hendrerit, lobortis nisi et, convallis tellus. Aenean convallis rutrum pretium. Fusce malesuada sapien quis magna dictum, et placerat tellus placerat.

### **Discussion**

Donec sapien tellus, dignissim sit amet dolor et, interdum vulputate justo. Mauris eget pellentesque felis. Suspendisse sollicitudin et augue vel molestie. Praesent pharetra pellentesque urna non ultrices.

### **Conclusion**

Donec venenatis ipsum quis consectetur pellentesque. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Mauris luctus, lacus quis rutrum malesuada, sapien mi semper sem, mattis blandit purus dolor efficitur metus. Vivamus fermentum scelerisque vehicula. Ut viverra gravida nulla, a tempor nunc varius tempor.

## References

- Lüdtke, O., Marsh, H. W., Robitzsch, A., Trautwein, U., Asparouhov, T., & Muthén, B. (2008). The multilevel latent covariate model: A new, more reliable approach to group-level effects in contextual studies. *Psychological Methods, 13*(3), 203–229. <https://doi.org/10.1037/a0012869>
- Marsh, H. W., Lüdtke, O., Robitzsch, A., Trautwein, U., Asparouhov, T., Muthén, B., & Nagengast, B. (2009). Doubly-latent models of school contextual effects: Integrating multilevel and structural equation approaches to control measurement and sampling error. *Multivariate Behavioral Research, 44*(6), 764–802. <https://doi.org/10.1080/00273170903333665>

## **Appendix A**

### **GDPR Documentation & Ethical Approval**

Statement where you declare that you followed proper protocol wrt GDPR and ethical approval given the particular context of your study. Followed by a statement where you list what documents/evidence you include in this appendix A:

- e.g., NSD GDPR Notification test & NSD GDPR Test outcome
- other

About us ([/personvernombud/en/about\\_us.html](/personvernombud/en/about_us.html))

Norwegian ([/personvernombud/meld\\_prosjekt/meldeplikttest.html](/personvernombud/meld_prosjekt/meldeplikttest.html))

NSD (</>) > Personvern tjenester (</personvernombud/>) > Data Protection Services (</personvernombud/en/>) > Notify project (</personvernombud/en/notify/>) > Notification Test

Denne siden på norsk ([/personvernombud/meld\\_prosjekt/meldeplikttest.html](/personvernombud/meld_prosjekt/meldeplikttest.html))

## Will you be processing personal data?

Are you unsure whether your project is subject to notification? Feel free to try our informal Notification test. Note that the test is intended as a guidance and is not a formal assessment.

**Will you be collecting/processing directly identifiable personal data?** ☐ Yes ☒ No

A person will be directly identifiable through name, social security number, or other uniquely personal characteristics.

Read more about personal data (</personvernombud/en/help/vocabulary.html?id=8>) and notification (</personvernombud/en/notify/index.html>).

NB! Even though information is to be anonymized in the final thesis/report, check the box if identifying personal data is to be collected/processed in connection with the project.

**Will directly identifiable personal information be linked to the data (e.g. through a reference number which refers to a separate list of names/scrambling key)?** ☐ Yes ☒ No

Note that the project will be subject to notification even if you cannot access the scrambling key (</personvernombud/en/help/vocabulary.html?id=11>), as the procedure often is when using a data processor (</personvernombud/en/help/vocabulary.html?id=3>), or in register-based studies ([/personvernombud/en/help/research\\_methods/register\\_studies.html](/personvernombud/en/help/research_methods/register_studies.html)).

**Will you be collecting/processing background information that may identify individuals (indirectly identifiable personal data)?** ☐ Yes ☒ No

A person will be indirectly identifiable if it is possible to identify him/her through a combination of background information (such as place of residence or workplace/school, combined with information such as age, gender, occupation, etc.).

**Will there be registered personal data (directly/indirectly/via IP or email address, etc.) using online surveys?** ☐ Yes ☒ No

Please note that the project will be subject to notification even if you as a student/researcher cannot access the link to the IP or email address, as the procedure often is when using a data processor.

Read more about online surveys ([/personvernombud/en/help/research\\_methods/online\\_surveys.html](/personvernombud/en/help/research_methods/online_surveys.html)).

**Will there be registered personal data using digital photo or video files?**

☐ Yes☒ No

Photo/video recordings of faces will be regarded as identifiable personal data. In order for a voice to be considered as identifiable, it must be registered in combination with other background information, in such a way that people can be recognized.

Show results

## Notify project

Do I have to notify my project? (</personvernombud/en/notify/index.html>)

Notification Form ([/personvernombud/en/notify/meldeskjema\\_link](/personvernombud/en/notify/meldeskjema_link))

Notifying changes ([/personvernombud/en/notify/notifying\\_changes.html](/personvernombud/en/notify/notifying_changes.html))

## Get help notifying your project

Processing the notification (</personvernombud/en/help/index.html>)

Frequently asked questions (</personvernombud/en/help/faq.html>)

Vocabulary (</personvernombud/en/help/vocabulary.html>)

Research topics ([/personvernombud/en/help/research\\_topics/](/personvernombud/en/help/research_topics/))

Research methods ([/personvernombud/en/help/research\\_methods/](/personvernombud/en/help/research_methods/))

Information and consent ([/personvernombud/en/help/information\\_consent/](/personvernombud/en/help/information_consent/))

Other approvals ([/personvernombud/en/help/other\\_approvals/](/personvernombud/en/help/other_approvals/))

## Result of Notification Test: Not Subject to Notification

You have indicated that neither directly or indirectly identifiable personal data will be registered in the project.

If no personal data is to be registered, the project will not be subject to notification, and you will not have to submit a notification form.

Please note that this is a guidance based on information that you have given in the notification test and not a formal confirmation.

For your information: *In order for a project not to be subject to notification, we presuppose that all information processed using electronic equipment in the project remains anonymous.*

*Anonymous information is defined as information that cannot identify individuals in the data set in any of the following ways:*

- directly, through uniquely identifiable characteristic (such as name, social security number, email address, etc.)*
- indirectly, through a combination of background variables (such as residence/institution, gender, age, etc.)*
- through a list of names referring to an encryption formula or code, or*
- through recognizable faces on photographs or video recordings.*

*Furthermore, we presuppose that names/consent forms are not linked to sensitive personal data.*

Kind regards,  
NSD Data Protection

## **Appendix B**

### **Data Management and Analysis Code**

Data are publicly available and retrievable at ThisWebpage or indicate why they are not accessible. Short Sketch of concrete parts of the data you used if not clear from method section or for instance when pre/postprocessing applies and has been done by someone else (StatisticsNorway or company or ...).

R syntax for all data management steps and analyses related to this master thesis can be found at the following web page  
GITHUBorOSFoffergoodplatformswithfreestorageforthispurpose.

Do provide a quick overview of how you structured everything on those pages with pointers on what is what and can be found where. Keep it concise but clear. The following parts can be found:

- Data management: DATA.R
- Descriptives: DESC.R
- Analyses for RQ1: RQ1.R
- ...

## **Appendix C**

### **Supplemental material**

Fusce interdum iaculis metus eu varius. Fusce nec nunc commodo massa pharetra imperdiet eget quis ipsum. Aliquam hendrerit porttitor congue. Quisque et malesuada nulla. Sed feugiat vel lectus sed hendrerit. Duis et eros eleifend, tempus mauris sed, euismod eros. Donec congue, dolor a finibus sodales, lectus nunc suscipit massa, at mollis massa libero non erat. Donec vel finibus est. Nunc sodales enim eget nunc posuere egestas. Nulla rhoncus commodo leo et dapibus.