# Thesis Title

Thesis Subtitle

**Author Name**

Dissertation for MSc Data Science


School of Computing and Communications
Lancaster University
Lancaster, UK
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**Abstract**

My abstract goes here...

# Contents

# List of Tables

# List of Figures

# Acknowledgements

I would like to thank ...

# Chapter 1

# Introduction

## 1.1 Background information

- text 1
- text 2
- text 3
- more text
- more text

## 1.2 Literature review

One important development was made by Abrams, Gillies, and Lambert (2005).

# Chapter 2

# Methods

## 2.1 Important main method

Initial modelling was performed using linear regression as defined in equation (2.1).

$$y_i = \beta_0 + \beta_1 x_i + \varepsilon_i,\ \varepsilon_i \overset{iid}{\sim} N(0, \sigma^2) \tag{2.1}$$

## 2.2 Additional method

- text 6
- text 7

# Chapter 3

# Results

## 3.1 Main results

And here is an example table of regression coefficients in Table 3.1.

```
mod <- lm(mpg ~ wt, data = mtcars)
coefcis <- cbind(coef(mod), confint.default(mod))
colnames(coefcis) <-
  c("Estimate", "95% CI lower limit", "95% CI upper limit")
knitr::kable(coefcis,
             digits = 2,
             booktabs = TRUE,
             caption = "Parameter estimates from regression of mpg on weight.") %>%
  kable_styling(latex_options = c("HOLD_position"))
```

Table 3.1: Parameter estimates from regression of mpg on weight.

| | Estimate | 95% CI lower limit | 95% CI upper limit |
|---|---|---|---|
| (Intercept) | 37.29 | 33.61 | 40.97 |
| wt | -5.34 | -6.44 | -4.25 |

Example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text example text.

An example of a figure is shown in Figure 3.1.

```
plot(pressure, pch = 19, type = "b")
```

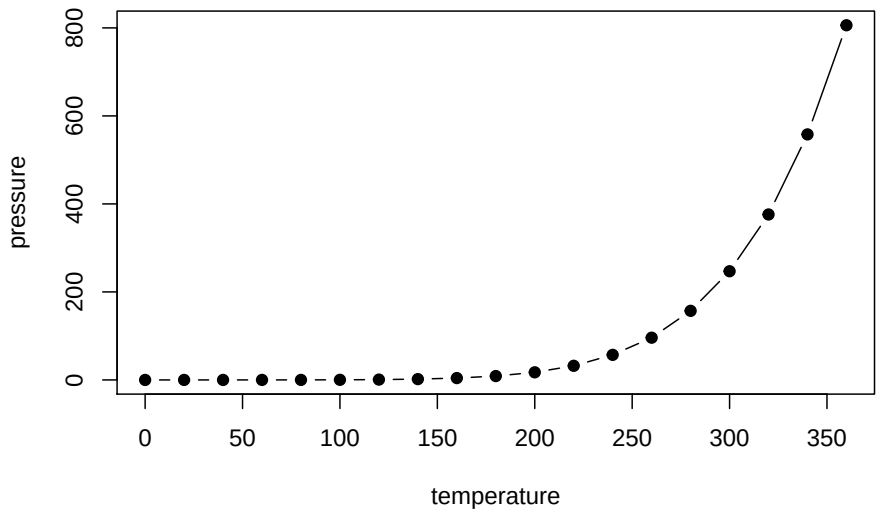


Figure 3.1: An example figure.

And we can include image files directly, such as Figure 3.2.

```
knitr::include_graphics("img/mtcars-scatter.png")
```

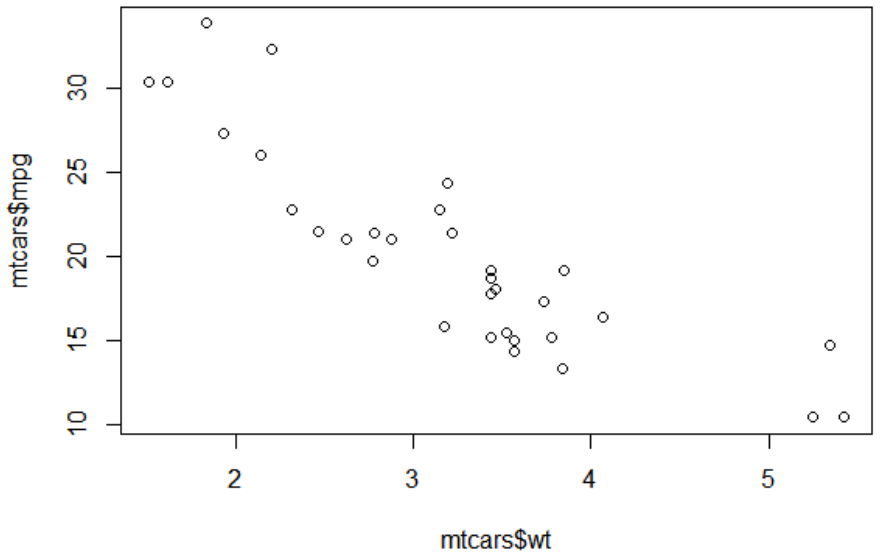


Figure 3.2: Another example figure.

To figure code chunks add the chunk option `fig.pos="H"` to use the LaTeX float package to try and

position the figure where the code appears.

Also, this is how to reference a section, e.g. the Introduction was chapter 1 and the Literature Review was section 1.2.

# Chapter 4

# Discussion

## 4.1 What I found

- text 1
- text 2
- text 3
- more text
- more text

## 4.2 What it means

- text 6
- text 7

# Chapter 5

# References

Abrams, K. R., C. L. Gillies, and P. C. Lambert. 2005. "Meta-Analysis of Heterogeneously Reported Trials Assessing Change from Baseline." *Statistics in Medicine* 24: 3823–44.

# Appendix of R code

```r
model <- lm(y ~ x1 + x2, data = df)
summary(model)
```