

Clinical Guide to fNIRS Research

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Chapter 1

Index

1.1 Things to add

Signe recommended students run a live tutorial in [swirl](#)

1.2 Documentation for Author

1.3 Andrew's Notes / Ramblings

To render the book used the following code, you must do this before knitting the GitBook (webpage)

```
bookdown::render_book("index.Rmd", "bookdown::gitbook")
bookdown::render_book("index.Rmd", "bookdown::pdf_book", encoding="UTF-8")
bookdown::render_book("index.Rmd", "bookdown::epub_book")
```

The `_output.yml` contains the header arguments. I would but them here so its cleaner and easier to read the code.

1.4 To Do

- Is there a way I can have matlab code syntax highlighted properly? Maybe [here](#)
- Get Camera to take nice pictures

- Get example dataset that I can run through
- Can I export this to github.io? The GitHub Repository for this guidebook can be found [here](#)
- Add highlight arg to `_output.yml`
- Upload the MATLAB packages required to GitHub directory
- ☐ Implement [Open Review](#) which will allow people to make comments. An example can be seen [here](#)
- ☒ Finish my changes
- ☐ Push my commits to GitHub
- ☐ Open a pull request
- ☒ Cleaned the main directory to make it easier to interpret for beginners

For Chapter ??

- ☐ steal logo from [here](#). It would be great to have a logo here that was cowboy themed
- ☐ [These](#) animations would be great at explaining some key concepts

1.5 Title word cloud

Titles: inquiry-based R for researchers in a hurry Reproducible science

1.6 Copy from Chapter 1 Example

You can label chapter and section titles using `{#label}` after them, e.g., we can reference Chapter `\@ref(intro)`. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter `\@ref(methods)`.

Figures and tables with captions will be placed in `figure` and `table` environments, respectively.

```
par(mar = c(4, 4, .1, .1))
plot(pressure, type = 'b', pch = 19)
```

Reference a figure by its code chunk label with the `fig:` prefix, e.g., see Figure `\@ref(fig:nice-fig)`. Similarly, you can reference tables generated from `knitr::kable()`, e.g., see Table `\@ref(tab:nice-tab)`.

```
knitr::kable(
  head(iris, 20), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

You can write citations, too. For example, we are using the **bookdown** package in this sample book, which was built on top of R Markdown and **knitr** .

1.7 MATLAB Highlighting

```
% This is a comment in MATLAB
function y = average(x)
if ~isvector(x)
    error('Input must be a vector')
end
y = sum(x)/length(x);
end
```

So could [this](#)

1.8 Misc code/data

```
gitbook(fig_caption = TRUE, number_sections = TRUE, self_contained = FALSE,
  lib_dir = "libs", pandoc_args = NULL, ..., template = "default",
  split_by = c("chapter", "chapter+number", "section", "section+number",
    "rmd", "none"), split_bib = TRUE, config = list(), table_css = TRUE)
```

1.9 Other Resources

<https://medium.com/@huixiangvoice/the-hidden-story-behind-the-suicide-phd-candidate-huixiang-chen-236cd39f79d3?fbclid=IwAR3zJ0zHAhNaHhRdXkiHfHOJV9RjZWdW6KReN6FB9lkx>

Book called [Just Enough R](#)

To test the normality of your data you can use a few different methods

- <http://www.sthda.com/english/wiki/normality-test-in-r>
- https://rstudio-pubs-static.s3.amazonaws.com/2002_1f803b2bc84c46008d3599a07867a95a.html

1. Plot your data
2. Check skewness and kurtosis
3. Shapiro test.

There should be a section on general access to your df. How to manipulate it effectively (perhaps in the data wrangling section) This would include things like using `df$colname` to access a column