

# Digital Research Toolkit for Linguists

## Week 9: Creating reports with Quarto and knitr

---

Anna Pryslopska

June 3, 2024

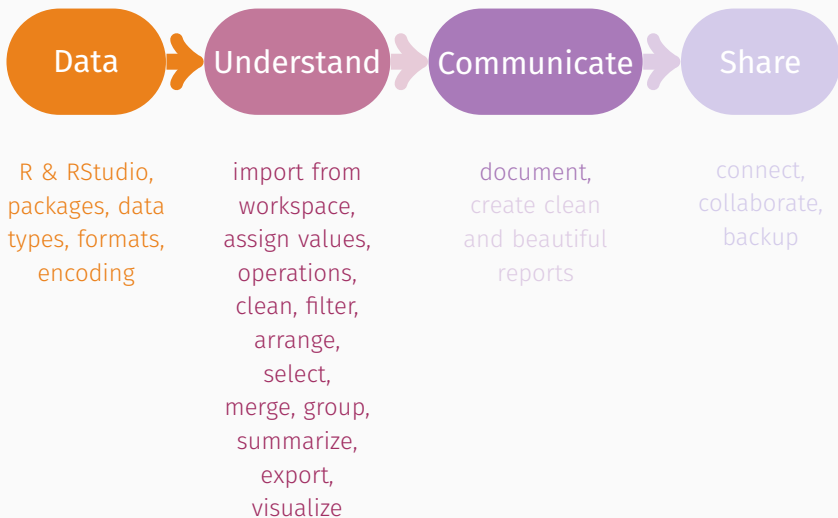
Psycholinguistics and Cognitive Modeling Lab

# Table of contents

1. Where are we this week?
2. Documentation
3. Markdown, Pandoc, and Quarto
4. Wrap-up

Where are we this week?

---



# Documentation

---

## Keeping records



# Why bother?

Someone WILL revisit your work → you or someone else

Up to date	keep track of all aspects
Reconsider	you think about what you're doing
Improve	quality (data, code, analysis, etc.)
Share	communication and collaboration
Remember	decisions, procedures, options, details, etc.
Reproducibility and transparency	easy access to information
Troubleshooting	what isn't doing its job

# How to document

## BILLY

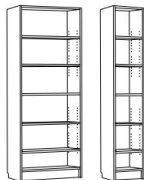
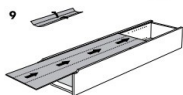
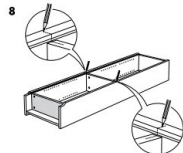
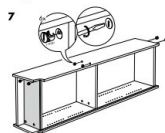
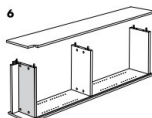
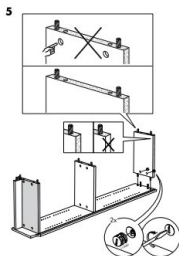
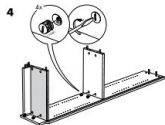
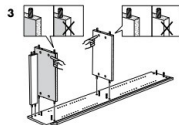
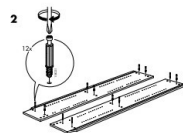
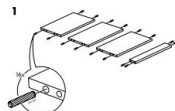
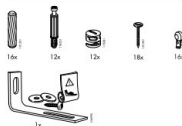
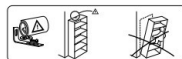
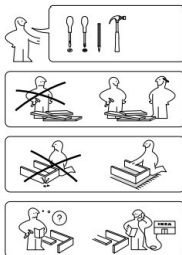


Image and text  
© 2010 IKEA





# Make your documentation

Understandable	to your audience (at least yourself)
Short	tl;dr
Descriptive	what is x and what does it do
Focused	get to the point
Complete	what data, packages, etc.
Fresh	memory decays fast
Timestamped	when did this happen?

- You're not even making any sense.

Exact Instructions Challenge - THIS is why my kids hate me. | Josh Darnit

Josh Darnit 121K subscribers

43K Share Clip Save

# Markdown, Pandoc, and Quarto

---

# Markdown



is a lightweight markup language for creating easy to read and easy to write plain text files. Widely used (Wikipedia, ILIAS, blogs, forums, instant messaging, GitHub, software documentation etc.).

Key goal is **readability** (compare Word, RTF or HTML).

## # Reporting and Documenting with Quarto

### ## Introduction

This a Quarto document. It shows a lot of features. You can use the source or visual editors to write your report and the render the file to the format of your choosing. Quarto primarily works with UTF-8 encoded text.

### ## Structure

Give your file structure. Use sections to organize the content into logical bits.

### ## Basic text formatting

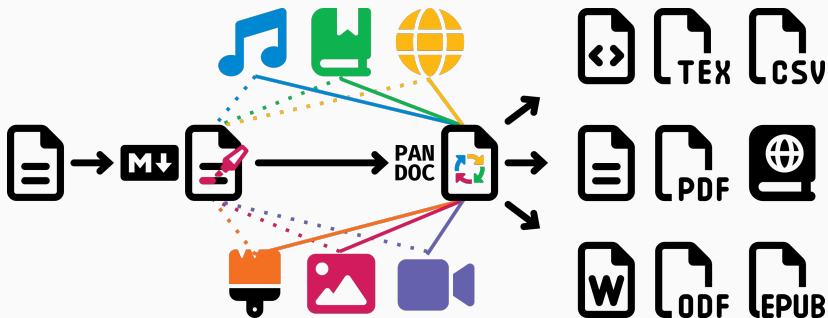
You can make your text stand out by making it ***bold***. Spacing matters: `\* \*this is broken\*`. In the visual editor, a lot of the options are available as the usual keyboard shortcuts.

# Pandoc

Enhanced Markdown (e.g. supports bibliographies) with basic functionality (looks are less important).



It's a free and open source document/markup format converter: it converts a document from one format to another:

<https://pandoc.org/diagram.svgz?v=20240511135422>



Quarto is an open-source tool designed for creating dynamic documents, presentations, and websites.

It supports multiple programming languages and formats (python, r, julia, observable and more).

It can integrate **code**, text, and  visualizations . You write using Pandoc markdown, but with additional syntax and features (e.g. code snippets, advanced formatting, interactivity).

You write the document as **QMD** and export it as **HTML**, **PDF**, **DOCX**, **ePub**, and more.

Questions?

## Wrap-up

---



# Summary

- ✓ Documentation and why it's important
- ✓ Markdown and Pandoc
- ✓ Creating documentation with Quarto
- ▶▶ Beautiful typesetting with  $\text{\LaTeX}$

- ❓ Complete assignment 7 ( $\rightarrow$  ILIAS)