

R Club: Manuscript Workshop

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Why use R to write manuscripts?

- ▶ Facilitate collaboration
- ▶ Streamline revisions
- ▶ Reduce errors
- ▶ Version control (with Github)
- ▶ Increase reproducibility > - appear

Workshop Highlights

- ▶ Set up R project
- ▶ Create files
- ▶ Incorporating references
- ▶ Knitting it all together

Set up R Project

- ▶ File > New Project
- ▶ Give the project a meaningful name (e.g., manuscript title)
- ▶ Project should be located in a folder that will contain all the files pertinent to the project (.csv data files, .bib citation files, etc.)
- ▶ Connect to Github repository (optional but highly encouraged!)

Create Files

- ▶ Rmarkdown file to write the manuscript
- ▶ (demo to follow)

Incorporating References

- ▶ Need to get citations into .bib format and save to project folder
- ▶ Easy to export to .bib with most citation managers
- ▶ Download citation style and store in project folder

Exporting to .bib in Mendeley

- ▶ In your citation manager, make sure each reference you want to include has a unique citation key.
- ▶ Citation key = method for inserting that citation in your paper

Exporting to .bib in Mendeley

The screenshot shows the Mendeley Desktop application interface. At the top, there's a search bar with the text "Author:amarel" and a user profile for "katherine". Below the search bar, a yellow banner displays "Results for 'Author:amarel' in 'All Documents'". A search results list on the left shows a single entry: "Effects of social support visibility on adjustment to stress: Experimental evidence." by Niall Bolger, D. Amarel, 2007, from the Journal of Personality and Social Psychology. The right pane provides a detailed view of this article, including the title, authors, journal name, year, volume, issue, and pages. It also contains an abstract, tags, author keywords, and a citation key. The citation key "Bolger2007" is highlighted with a red rectangle. At the bottom left, a status bar indicates "1 of 916 documents selected".

Mendeley Desktop

Search: Author:amarel

katherine

Help

All Documents Edit Settings

Results for "Author:amarel" in "All Documents" Clear


Search Results

Effects of social support visibility on adjustment to stress: Experimental evidence.
Niall Bolger, D. Amarel - 2007 - Journal of Personality and Social Psychology
Authors: Niall Bolger, David Amarel

Type: Journal Article

Effects of social support visibility on adjustment to stress: Experimental evidence.

Authors: N. Bolger, D. Amarel

 View research catalog entry for this paper

Journal: *Journal of Personality and Social Psychology*

Year: 2007

Volume: 92

Issue: 3

Pages: 458-475

Abstract:
Previous fieldwork has suggested that visible social support can entail an emotional cost and that a supportive act is most effective when it is accomplished either (a) outside of recipient awareness or (b) within their awareness but with sufficient subtlety that they do not interpret it as support. To investigate the latter phenomenon, the authors conducted 3 experiments in which female participants were led to expect a stressful speech task and a confederate peer provided support in such a way that it was either visible or invisible (N=267). Invisible support (practical and emotional) reduced emotional reactivity relative to visible and no support. Visible support was either ineffective or it exacerbated reactivity. Explanatory analyses indicated that support was effective when it avoided communicating a sense of inefficacy to recipients.

Tags:

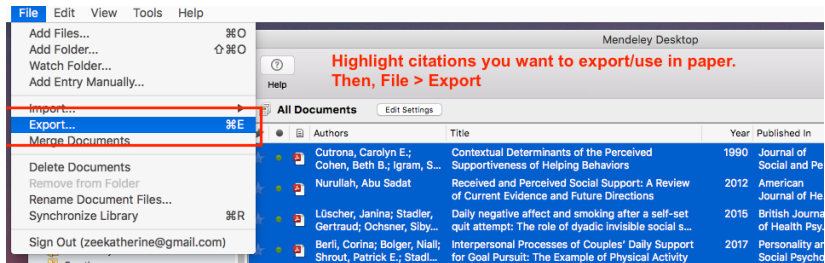
Author Keywords:
Adaptation; Adult; Awareness; Cognition; Female; Humans; Interpersonal Relations; Male; Psychological; Psychological psychology; Social Support; Stress

Citation Key:
Bolger2007

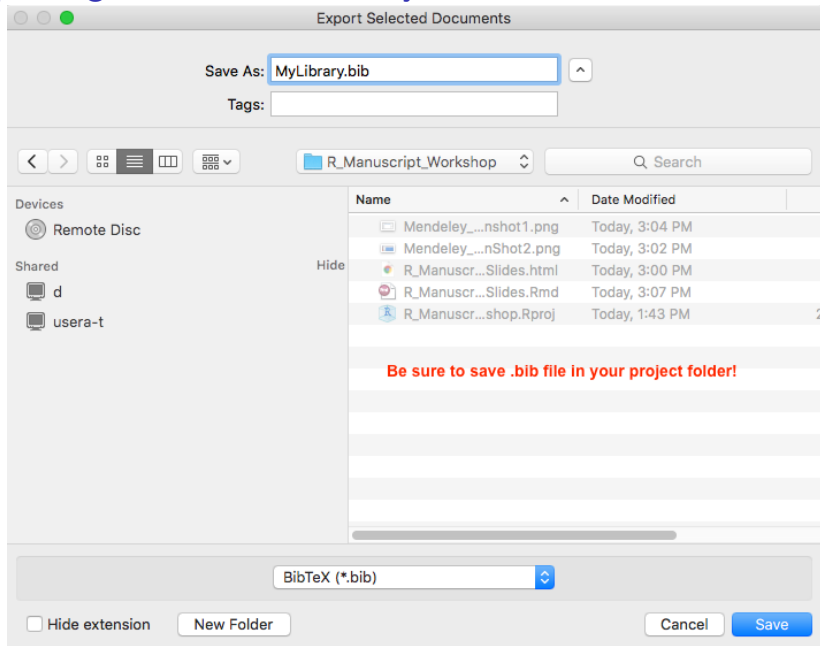
Date Accessed:
2014-05-31

1 of 916 documents selected

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Add citation style to project folder

- ▶ Tells Rmarkdown what citation style you want to use
- ▶ Easily searchable/downloadable
- ▶ For most of us: `apa-no-doi-no-issue.csl`

Set up Rmarkdown file

- ▶ in R, File > New File > R Markdown...
- ▶ You have two options: (1) "Document" or (2) "Template" followed by APA 6th Edition (with papaja package).
- ▶ "Document": Pros = can knit to word, html, or PDF. If using R Notebook, you can preview your work as you go. Cons = not in perfect APA format
- ▶ "Template": Pros = takes care of APA formatting. Cons = require LaTeX.
- ▶ One potential solution: Write your manuscript as a "Document", and then copy and paste the final version into the APA template offered by papaja (with some minor tweaks) before submission.
- ▶ I have included an example file a papaja doc.

papaja

- ▶ Preparing APA journal articles
- ▶ If you get a message saying that papaja isn't available for your version of R, try downloading the developer version
- ▶ For more on papaja, check out this bookdown

```
library(devtools)  
devtools::install_github("crsh/papaja")
```

Set up Rmarkdown file

- ▶ Save file in the project folder and give it an appropriate name
- ▶ You will need to specify both the .bib file and the citation style.
Add this information to the top of your Rmarkdown file.
- ▶ For more on Rmarkdown, check out this cheatsheet ([link](#))

Set up Rmarkdown file

```
---  
title: "My Awesome Manuscript"  
author: "Katherine S. Zee"  
date: "3/24/2018"  
output: word_document  
csl: apa-no-doi-no-issue.csl  
bibliography: MyLibrary.bib
```

Optional: Set up data and helper functions in separate files (.R or .Rmd)

- ▶ in R, File > New File > R Script
- ▶ Same script as you would normally use
- ▶ This is optional because you could do your analyses directly in the main R markdown file using code chunks
- ▶ Possible to `source()` your .R file or `ksource()` your .Rmd file, essentially reading it into the R markdown file
- ▶ I prefer using a separate file for my analyses because it is easier for me to code efficiently and work on my analyses. It also means that I have a data file ready to go in case someone wants to see my analyses (before or after publication). This gives me a way to send my code in an organized way. More on this later.

Draft your manuscript

- ▶ Write as normal, with a few differences.
- ▶ To insert a citation:

type [`@citationkey`] to insert a citation

- ▶ For example, typing [`@Bolger2007`] yields: Prior work investigated experimentally manipulated support visibility (Bolger & Amarel, 2007).

Draft your manuscript

- ▶ Instead of typing in statistics, use R to program them in. This is super useful! Assuming you keep variables names, object names, etc. consistent, R can automatically update the contents of your manuscript when you make changes to your analyses.
- ▶ For example, all the numbers in this sentence were programmed: First, we examined the effect of x on m . Contrary to our predictions, we found no main effect of x , $b = 0.06$, 95% CI $[-0.17, 0.31]$.

Knitting

- ▶ Knit = command to get R to “build your manuscript”
- ▶ Outputs into the project folder
- ▶ I recommend saving your .tex file. After acceptance, you can just submit this to the publisher and that's it! ([gear wheel in Rstudio] > Output Options > Advanced tab > Keep tex source file. . .)

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- ▶ I have now written two papers using Rmarkdown (papaja, specifically). One is published and one has been conditionally accepted.
- ▶ There were some growing pains involved, but it was worth it, especially at the revision stage.
- ▶ It also helped me stay organized (one of the papers in question had 8 studies and 32 tables. . . not including the supplemental materials).

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- ▶ I find that it is easier to compose my thoughts for the less technical parts of papers (i.e., intro and discussion) in Word. I'll write the text out in Word the way I would write it in R (e.g., using # to indicate headers, using [citationkey] to insert my references). Once I've gotten these parts to a reasonable stage, all I have to do then is copy and paste into a papaja template or Rmarkdown file.

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- ▶ Sometimes, I'll add an interim step where I write my paper in an R Notebook. This allows me to see the in-line code more easily as I'm writing rather than having to knit the file to do that.

References

Bolger, N., & Amarel, D. (2007). Effects of social support visibility on adjustment to stress: Experimental evidence. *Journal of Personality and Social Psychology*, 92, 458–475.