Dominating Lab 8

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Abstract

We will rock this lab and show that we are master's of R.

Keywords: Rockstars, Science Rules

Dominating Lab 8

Setup packages to be used

load data

Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants

Material

Procedure

Data analysis

We used R (Version 3.5.1; R Core Team, 2018) and the R-packages *dplyr* (Version 0.7.6; Wickham, François, Henry, & Müller, 2018), *forcats* (Version 0.3.0; Wickham, 2018a), *ggplot2* (Version 3.0.0; Wickham, 2016), *here* (Version 0.1; Müller, 2017), *kableExtra* (Version 0.9.0; Zhu, 2018), *papaja* (Version 0.1.0.9842; Aust & Barth, 2018), *purrr* (Version 0.2.5; Henry & Wickham, 2018), *readr* (Version 1.1.1; Wickham, Hester, & Francois, 2017), *rio* (Version 0.5.10; C.-h. Chan, Chan, Leeper, & Becker, 2018), *stringr* (Version 1.3.1; Wickham, 2018b), *tibble* (Version 1.4.2; Müller & Wickham, 2018), *tidyr* (Version 0.8.1; Wickham & Henry, 2018), and *tidyverse* (Version 1.2.1; Wickham, 2017) for all our analyses.

Results

Discussion

As we found in our meta-analysis (Hackman, O'Brien, and Zalewski (2018)) there is a small, but enduring association between parenting styles and child cortisol. One of our co-authors is also a total badass whose paper won an award for best publication (Gómez, Lewis, Noll, Smidt, and Birrell (2016)).

Commit 4: Table

Boys from non-low income families have an average math score of 492.85 (46.34) and an average reading score of 441.46 (32.32). Boys from low income families have lower average scores in math and reading, 469.87 (46.09) and 425.38 (26.63), respectively. Girls results follow a similar pattern, such that compared to girls from low-income families, girls from non-low income families have higher scores in math, 501.21 (45.96) vs. 477.51 (46.31) and reading, 448.54 (34.52) vs. 430.80 (27.42).

sex	frl	math_mean	math_sd	rdg_mean	rdg_sd
boy	no	492.8523	46.33845	441.4553	32.31828
boy	yes	469.8716	46.09285	425.3794	26.62931
girl	no	501.2057	45.96210	448.5353	34.52403
girl	yes	477.5084	46.30459	430.8029	27.42125

Commit 5: Plot

It appears that there is a main effect of lunch status, such that those who receive paid means exhibit higher total math scores than those who receive free/reduced price meals.

There is also a main effect of teacher experience, such that as teacher experience increases, total math scores for students increases, regardless of lunch status. There is no interaction.

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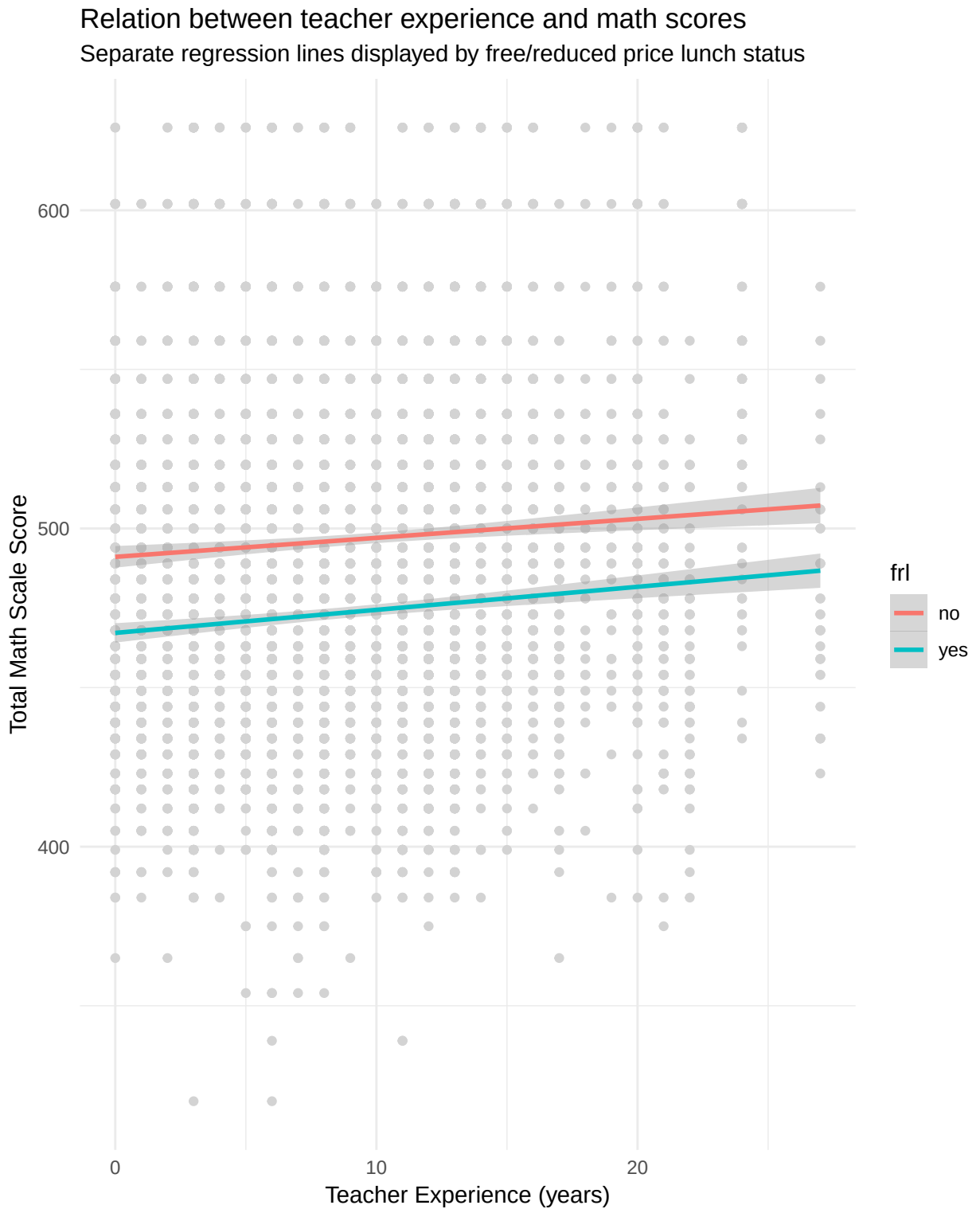
Relation between teacher experience and math scores
Separate regression lines displayed by free/reduced price lunch status
Total Math Scale Score
600
500
400
0
10
20
Teacher Experience (years)
frl
no
yes

Figure 1