

EVALUATING BETTER TOGETHER CONFERENCE:
TEACHING SESSION

A U T U M N 2 0 1 8

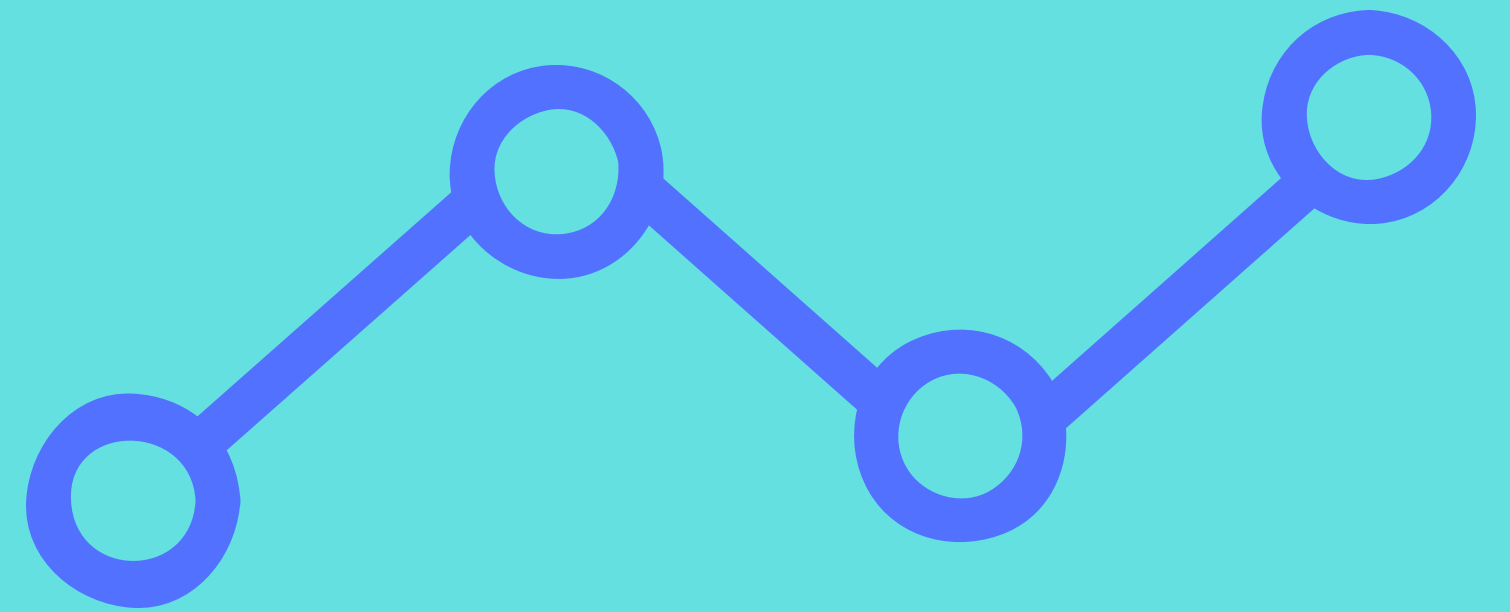
WORKING WITH LONGITUDINAL DATA

MAGGIE SCHULTZ PATEL

PRINCIPAL EVALUATOR,
SCHULTZ PATEL EVALUATION

OBJECTIVE

- share two strategies for building longitudinal databases
- review coding time points for rolling interventions



A G E N D A

- Intro & VLOOKUP Demo
- Practice and troubleshooting time
- Access Database Demo
- Practice and troubleshooting time
- Coding timepoints in rolling interventions Demo
- Practice and troubleshooting time
- Resources & Closing

LONGITUDINAL DATA: WHAT ARE THE CHALLENGES?

- systematically matching records across files
- rolling interventions

MATCHING RECORDS ACROSS FILES: EXAMPLE

- Example: Separate files for attendance, discipline referrals, grades, demographics for the same group of students
- Goal is to build a comprehensive record for each student across all data sources (person-level data set)

two strategies:



**VLOOKUPS
ACCESS DATABASE**

VLOOKUP

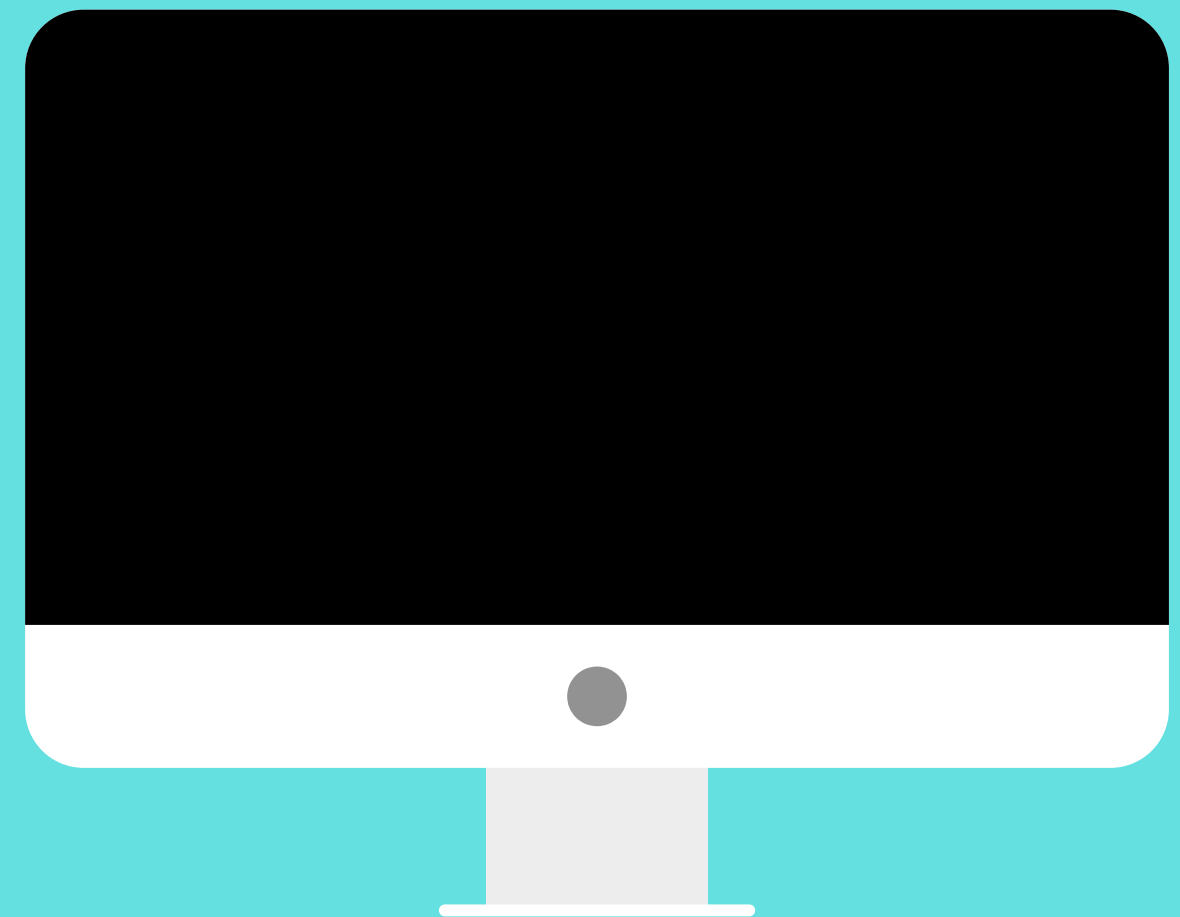
An Excel formula used to combine datasets with a common unique identifier

4 components:

- lookup value: *unique id*
- table array: *table to look up data in*
- column index number: *which column of data you want to bring over*
- range lookup: *always FALSE, otherwise will bring over partial matches*

Demo

Let's practice!



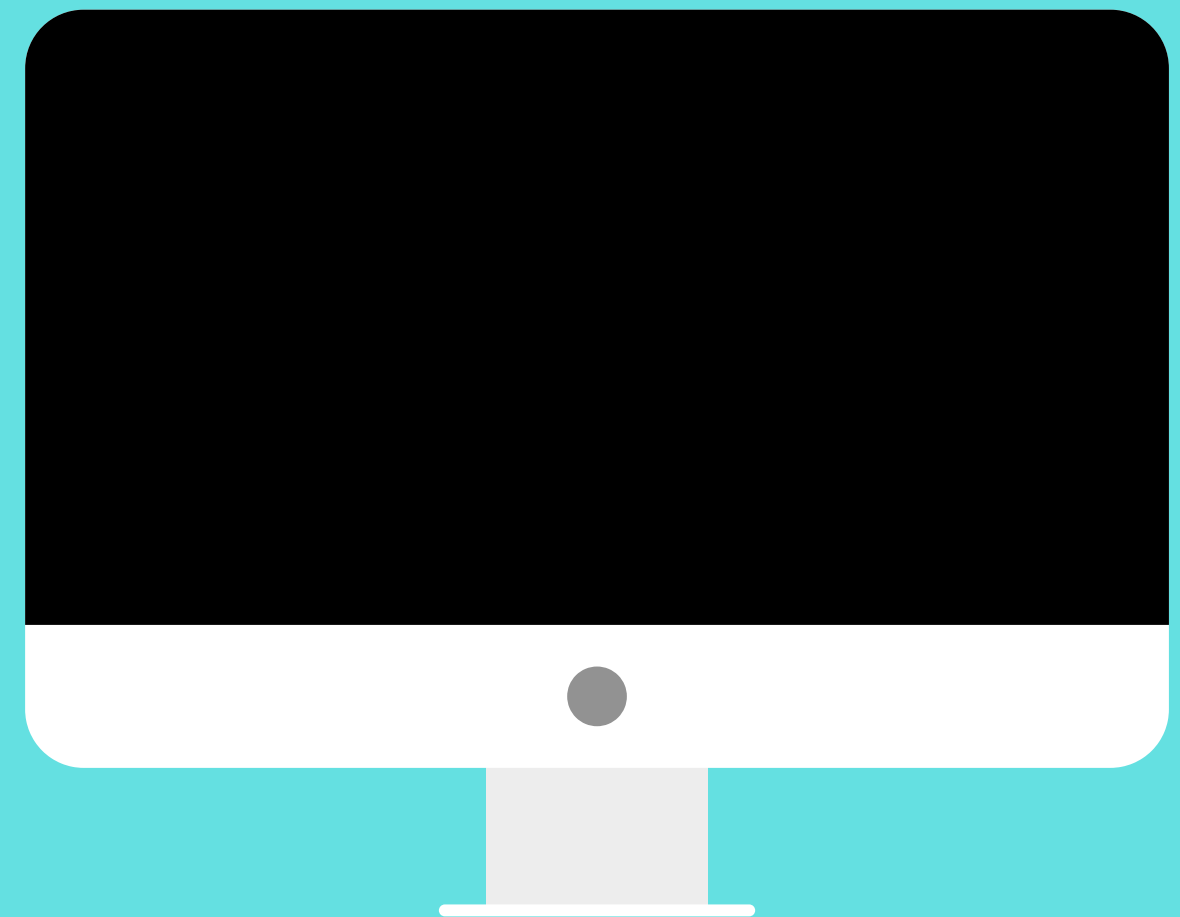
ACCESS DATABASE

Used to combine datasets with a common unique identifier

- Either use data entry form directly in Access or import CSV from Excel
- Create a query linking tables that will result in a new table with combined fields

Demo

Let's practice!



ROLLING INTERVENTIONS: EXAMPLE

- What if participants are starting and leaving the program at all different times?
- This may complicate the following period (*say, 30 days before and after intervention*)
- Ex: youth intervention, goal is to determine number of discipline referrals before and after intervention

ROLLING INTERVENTIONS: SOLUTION

- Code timepoints by days from intervention
- Ex: DV is number of discipline referrals
- Step 1: Set pre and post period for each student (*+/- 30 days from intervention*)
- Step 2: Use COUNTIFS to determine whether discipline referral was before or after intervention and within following period

COUNTIFS

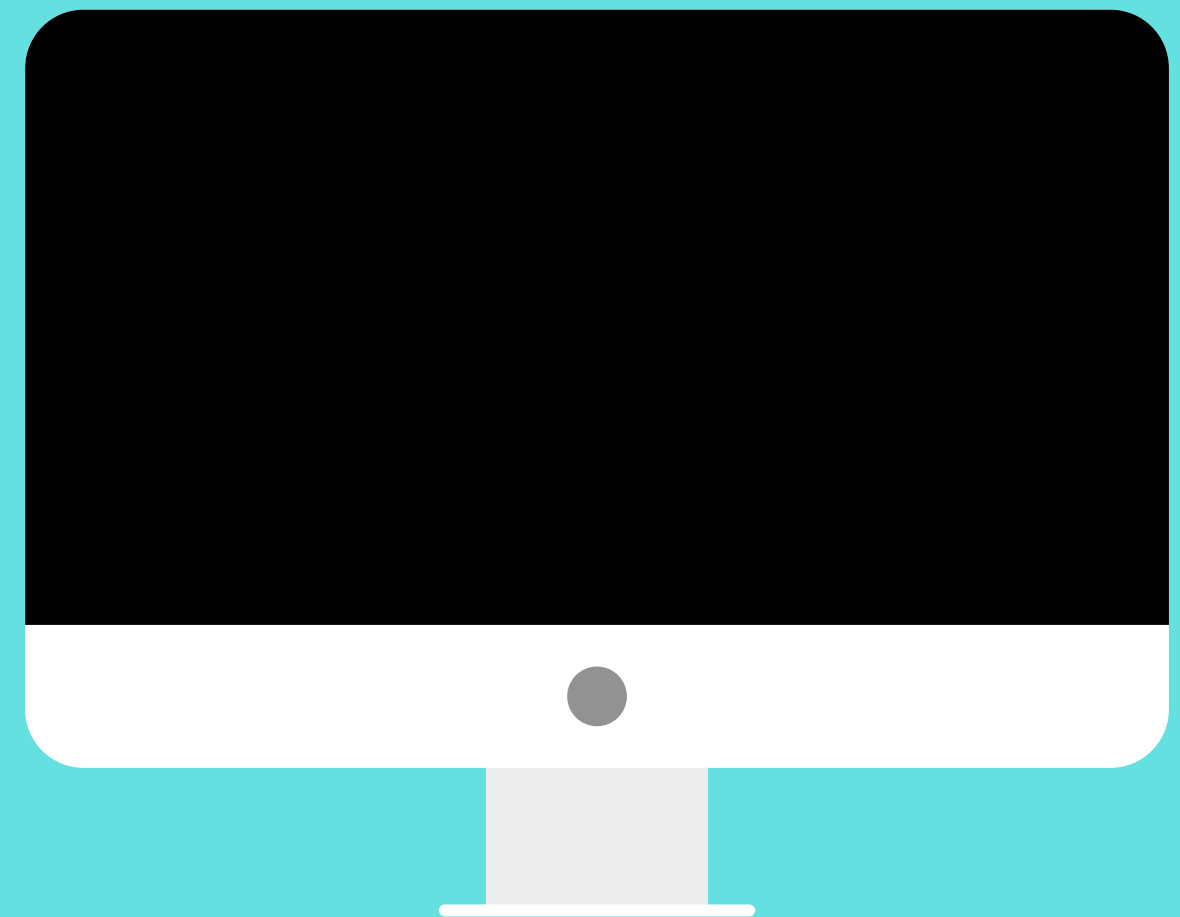
Used to count the number of cells that meet a set of criteria

2 components:

- range: select cells to be counted
- criteria: some sort of logic, such as ">=" & date
- can combine multiple statements together

Demo

Let's practice!



RESOURCES

Singer, J. & Willet, J. (2003) *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford: Oxford University Press.

Wickham, H. (2014). Tidy data. *Journal of Statistical Software*, 59(10).



maggie@schultzpateleval.com