

Google, meet Microsoft: Joining technologies to track conference attendance and obtain feedback...a “How-to” Guide

For our example we will utilize the following conference schedule:

8:00-9:00am: Resident/Attending Core: Gestational HTN/Preeclampsia/Eclampsia: Drs. Powers and South
 9:00-10:00am: Split Sessions Board Review
 PGY1/Students: Dr. Scott (JP Conference Room)
 PGY2: Dr. Abbuhl (EDILL)
 PGY3/4: Dr. Agarwal (Resident Room)
 ***10:00-11:00am: Consultant Lecture Series: Neurology- Dizziness: Dr. Price
 ***11:00-12:00pm: Grand Rounds: “Economics of Emergency Medicine” Dr. Lin

***Denotes CME Available

Creating the Google Form:

1. Title, primer, and demographics:

Section 1 of each conference form contains the same information. Notice the title of the form includes the date of the conference for organizing purposes. We also include a primer as to the purpose of the form and when the form closes. Finally, we collect names for attendance tracking and set up the form so that each respondent is sent a copy of their answers. This allows respondents to keep track in case of a discrepancy.

The screenshot shows a Google Form titled "2/12/20 Conference Evaluation and Attendance Attestation". The form is divided into sections. The first section contains the following text: "Please complete the form below in its entirety in order to track attendance and provide feedback on conference. Forms become unavailable for completion at the beginning of the following conference date. Names and emails are only collected for attendance purposes. Feedback provided will be aggregated and shared anonymously with the presenter." Below this text is a required "Email address" field with a validation message "Valid email address" and a link to "Change settings". The second section is titled "I am" and contains a list of radio button options: Resident, Attending, APP, Fellow, Student, and Other... The third section is titled "Name" and contains a "Short answer text" field. At the bottom of the form, there is a navigation bar with the text "After section 1 Continue to next section".

2. Conference Session Attendance and Feedback

For each session we ask respondents if they were present or not or if they were presenting. This question will be referred to as the **“attendance attestation”**. You’ll notice in the screenshot below that each option brings the respondent to a different portion of the form based on their answer. For example, those that did not attend a session or those that presented do not complete the feedback section for that particular session. Instead, they are brought to the attendance attestation for the next session of that week’s conference.

Section 2 of 16

Resident Core Lecture: "Gestational HTN/Preeclampsia/Eclampsia" Dr. Powers

Description (optional)

I was present for this session

Multiple choice

Yes
Continue to next section

No
Go to section 4 (Attending Core Lec...ampsia" Dr. South)

I was the presenter
Go to section 4 (Attending Core Lec...ampsia" Dr. South)

Add option or add "Other"

Required

After section 2 Continue to next section

The **“feedback section”** for each session asks for a rating of the session and for written comments (see below).

Section 3 of 16

Resident Core Lecture: "Gestational HTN/Preeclampsia/Eclampsia" Dr. Powers

Description (optional)

Overall Quality of Session *

Poor 1 2 3 4 5 Excellent

Feedback *

Long answer text

After section 3 Continue to next section

We ask for the same information for each session included in the schedule...an attendance attestation and a feedback section for those that were present and not a presenter.

3. Split Sessions

Our conferences incorporate several “split sessions” where we divide learners by their PGY level. In these instances, we start with the standard attendance attestation. For those that attended, but did not present, we then ask to choose the session they attended from a drop-down menu. This allows for the respondent to be directed to the corresponding feedback section for that session (see below)..

The image shows three sequential screenshots of a survey interface, connected by blue arrows indicating the flow of the survey.

Section 6 of 16: Split Sessions: Board Review
 Description (optional)
 I was present for this session *
 Yes
 No
 I was the presenter
 After section 6 Continue to next section

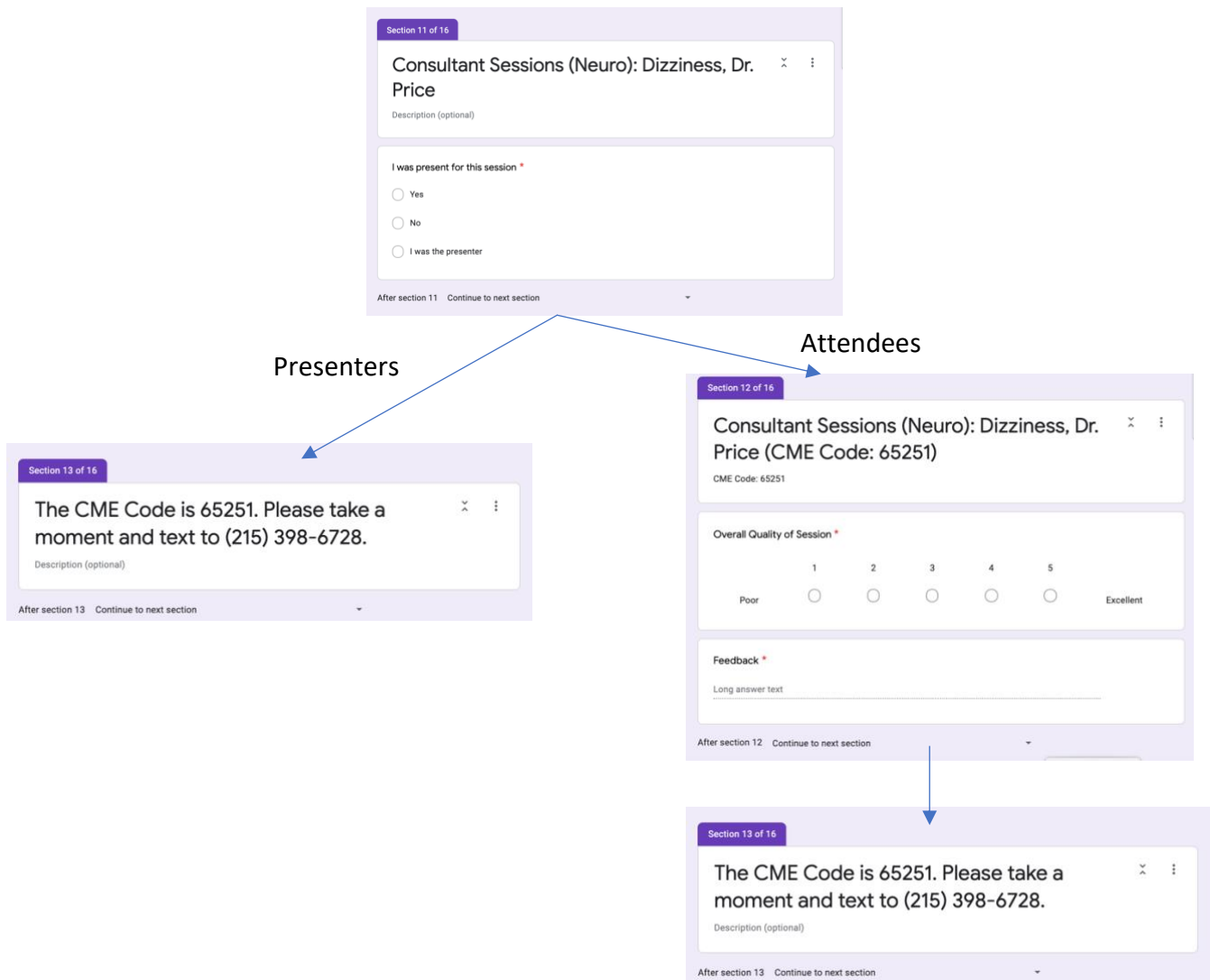
Section 7 of 16: Split Sessions: Board Review
 Description (optional)
 Please choose the session you attended: [Dropdown]
 1. PGY1/Students: Dr. Scott X Go to section 8 (Split Session Boar...udents: Dr. Scott) v
 2. PGY2: Dr. Abbuhl X Go to section 9 (Split Session Boar... PGY2: Dr. Abbuhl) v
 3. PGY3/4: Dr. Agarwal X Go to section 10 (Split Session Boar...Y3/4: Dr. Agarwal) v
 4. Add option
 Required
 After section 7 Continue to next section

Section 8 of 16: Split Session Board Review: PGY1/Students: Dr. Scott
 Description (optional)
 Overall Quality of Session *
 1 2 3 4 5
 Poor Excellent
 Feedback *
 Long answer text
 After section 8 Go to section 11 (Consultant Session...ziness, Dr. Price)

You'll notice that after completing the feedback portion, the form is set-up to bring the respondent to the next session scheduled for that conference day (above underlined in red). This prevents the user from completing feedback for the other split sessions.

4. CME Sessions

As noted above in the example conference schedule, CME is available for some sessions. When CME is available, we include the text codes in the Google Form. Below, you'll notice we create the same attendance attestation. Presenters are brought directly to a section that provides them with the CME code for the session. Attendees are asked to provide feedback and are then brought to the same CME code section (see below).



5. Finishing out the Form

For the last conference session, the attendance attestation is formatted so that those that do not attend the last session, submit the form. Presenters will either submit the form or be shown a CME code prior to submitting. Attendees will complete the feedback section and then submit or be shown a CME code prior to submission.

Section 14 of 16

Grand Rounds: "Economics of Emergency Medicine" Fred Lin, MD

Description (optional)

I was present for this session Multiple choice

Yes

Go to section 15 (Grand Rounds: "Eco...(CME Code: 65252))

No

Submit form

I was the presenter

Go to section 16 (The Grand Rounds C...o (215) 398-6728.)

Add option or [add "Other"](#)

Screenshot

Did not attend

Presenters

Attendees

Section 16 of 16

The Grand Rounds CME Code is 65252.
Please take a moment and text to (215) 398-6728.

Description (optional)

Screenshot

Section 15 of 16

Grand Rounds: "Economics of Emergency Medicine" Fred Lin, MD (CME Code: 65252)

CME Code: 65252

Overall Quality of Session *

Poor 1 2 3 4 5 Excellent

Feedback *

Long answer text

After section 15 Continue to next section

Section 16 of 16

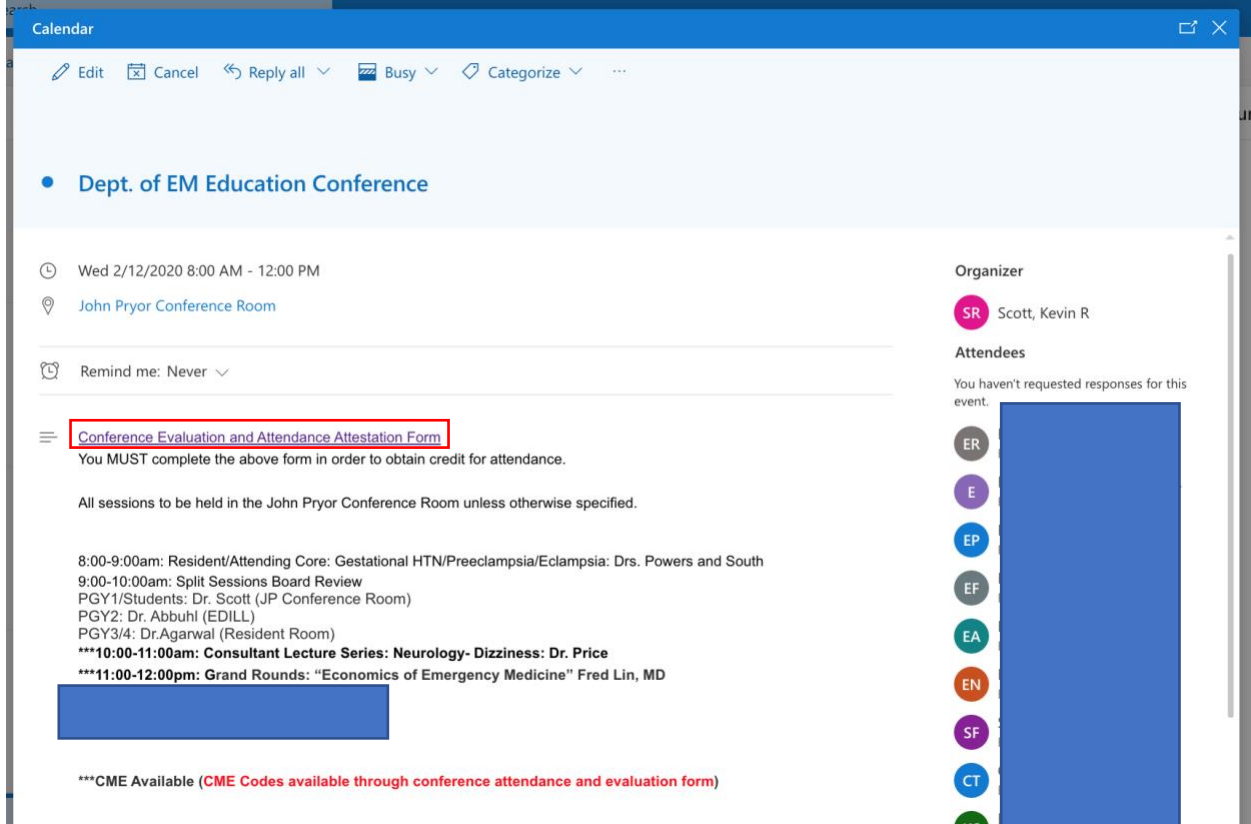
The Grand Rounds CME Code is 65252.
Please take a moment and text to (215) 398-6728.

Description (optional)

Screenshot

Linking the Form with Microsoft Outlook

Microsoft Outlook is the primary work email for Penn. In order to distribute conference schedules and the Google Form, we utilize a calendar invite that gets sent to all residents, faculty, nursing, APPs, and fellows.



A hyperlink is included (highlighted above) that directs the user to the Google Form. This is easily accessed via mobile device or computer.

Calculating and Extracting Conference Hours

Weekly Evaluation/Attestation Google Form Creation (to be completed by residency leadership)

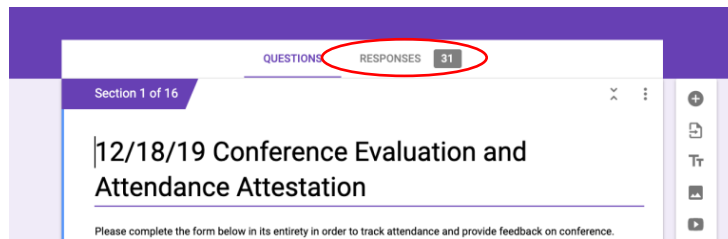
-Each week, residency leadership creates a Google Form for that week’s conference and sends it out via a calendar invite. This allows the residency leadership to alter the form real-time in case of last-minute changes to the schedule. That form is saved in a “conference attendance and feedback” folder in the corresponding month.

Closing Forms to Responses

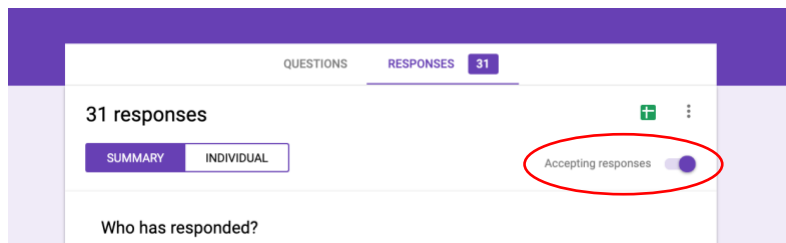
-We close forms to responses no sooner than one week after the corresponding conference date.

1. Opening and closing a form for responses:

Name	Owner	Last modified	File size
12/4/19	me	Dec 16, 2019	me
12/4/19 (Responses)	me	Dec 16, 2019	me
12/11/19	me	Dec 19, 2019	me
12/11/19 (Responses)	me	Dec 23, 2019	me
12/18/19	me	Dec 18, 2019	me



Click on “responses” (circled above in red)



Click “accepting responses” to open or close a form

Step-by Step Guide for Extracting Data for Conference Attendance

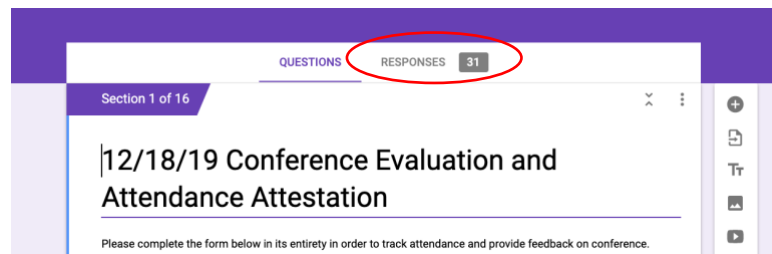
1. Create Google Sheet containing Response Data

a. Open desired week's form

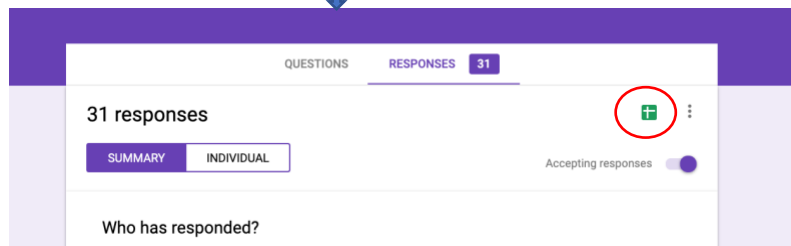
My Drive > ... > Conference Attendance/Evaluati... > 2019-... > [Share] [Eye] [Trash] [More] [Grid]

Name ↑	Owner	Last modified	File size
12/4/19	me	Dec 16, 2019 me	—
12/4/19 (Responses)	me	Dec 16, 2019 me	—
12/11/19	me	Dec 19, 2019 me	—
12/11/19 (Responses)	me	Dec 23, 2019 me	—
12/18/19	me	Dec 18, 2019 me	—

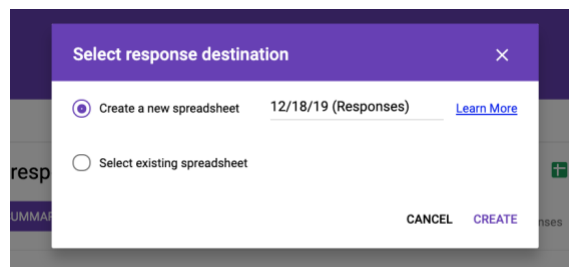
Click to open form



Click on "responses" (circled above in red)



Click on Google Sheet Icon



Click "Create"

This will automatically create and open a Google Sheet with the same title as the form and all responses will be recorded in this sheet. It will also be automatically saved to the Google Folder. Once a sheet has been created for a form, clicking the icon will open the corresponding sheet. You can also access by opening via the folder (example below).

My Drive > ... > Conference Attendance/Evaluati... > 2019-... > > > >

Name	Owner	Last modified	File size
12/4/19	me	Dec 16, 2019 me	-
12/4/19 (Responses)	me	Dec 16, 2019 me	-
12/11/19	me	Dec 19, 2019 me	-
12/11/19 (Responses)	me	Dec 23, 2019 me	-
12/18/19	me	Dec 18, 2019 me	-

Once you click create, the sheet will open:

Timestamp	Email Address	I am a	Name	I was present for this sess	I was present for this sess	Overall Quality of the Ses	Feedback	I was present for this sess	Overall Quality of Sessior	Feedback	I was present for this sess
12/18/2019 6:15:01		Attending		Yes	Yes	4	Very helpful	Yes	5	Very helpful	Yes
12/18/2019 7:02:16		Attending		Yes	Yes	5	Very practical	Yes	5	Practical	Yes
12/18/2019 7:11:05		Attending		I was the presenter	Yes	4	A lot of material to cover	Yes	5	Nice Job	No
12/18/2019 7:17:57		Resident		No	Yes	5	.	Yes	5	.	Yes
12/18/2019 8:14:00		Attending		No	No	No		No	No		No
12/18/2019 8:18:23		Attending		No	No	No		No	No		No
12/18/2019 8:23:12		Resident		Yes	Yes	5	Great job of simplifying th	Yes	5	Loved learning how to act	Yes
12/18/2019 8:40:35		Attending		No	Yes	5	Great talk!	I was the presenter	No		No
12/18/2019 8:45:59		Resident		Yes	Yes	5	Relevant and good use of	Yes	5	Empowering. We should	Yes
12/18/2019 8:48:56		Attending		No	No	No		No	No		No
12/18/2019 8:51:40		Resident		Yes	Yes	5	Great concise overview	Yes	5	Very helpful information	Yes
12/18/2019 9:04:49		Resident		Yes	Yes	5	Excellent and well done.	Yes	5	Excellent as always	Yes
12/18/2019 9:07:56		Resident		Yes	Yes	5	Simple and great foundati	Yes	5	Great hands on experie	No
12/18/2019 9:10:55		Attending		Yes	Yes	5	excellent review!	Yes	5	Great ideal! We should m	Yes
12/18/2019 9:40:28		Attending		No	No	No		No	No		No
12/18/2019 10:11:07		Attending		No	No	No		No	No		No
12/18/2019 10:18:58		Resident		Yes	Yes	5	Great lecture	Yes	5	Great lecture	Yes
12/18/2019 10:35:51		Attending		Yes	Yes	5	great job!	Yes	5	very interactive great!	No
12/18/2019 11:29:50		Attending		No	Yes	4	Very helpful	Yes	5	Very useful	Yes
12/18/2019 12:04:29		Attending		No	No	No		No	No		Yes
12/18/2019 12:08:58		Resident		No	Yes	4	Comically relevant. Wish	Yes	3	Wish here was more time	Yes
12/18/2019 13:07:58		Resident		Yes	No	No		No	No		No
12/18/2019 13:09:25		Resident		Yes	Yes	5	.	Yes	5	.	Yes
12/18/2019 16:04:34		Resident		Yes	Yes	5	Great intro topic	Yes	5	Super helpful glad someo	Yes
12/18/2019 16:20:06		Resident		Yes	Yes	5	Really cleared up everyth	Yes	5	Great to clear up things n	Yes
12/18/2019 19:53:07		Resident		Yes	Yes	5	concise, clear, memorabi	Yes	5	excellent. thx for actual	Yes
12/19/2019 9:24:25		Resident		Yes	Yes	5	N/A	Yes	5	N/A	Yes
12/19/2019 11:10:19		Resident		Yes	Yes	5	Great topic	Yes	5	Really appreciate the han	Yes
12/19/2019 22:42:07		Attending		No	No	No		No	No		No
12/20/2019 10:28:41		Attending		No	No	No		No	No		No
12/20/2019 14:30:48		Resident		No	No	No		No	No		Yes

2. Gathering Attendance Data from the Google Sheet

Respondents click one of the following radio buttons for each conference session:

Their response is recorded as such in the sheet

Timestamp	Email Address	I am a	Name	I was present for this sess
12/18/2019 6:15:01		Attending		Yes
12/18/2019 7:02:16		Attending		Yes
12/18/2019 7:11:05		Attending		I was the presenter
12/18/2019 7:17:57		Resident		No
12/18/2019 8:14:00		Attending		No
12/18/2019 8:18:23		Attending		No
12/18/2019 8:23:12		Resident		Yes
12/18/2019 8:40:35		Attending		No

We format the sheet to count the number of times a respondent answers “yes” or “I was the presenter”.

a. Formatting the Sheet

- i. While in the sheet, scroll all the way to the right to find the end of the response section. In this example, column “U” is the first column without response data and is where we will begin entering our formulas.

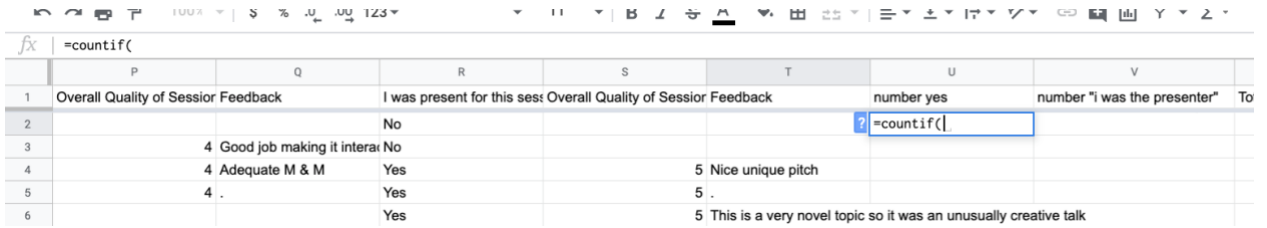
- ii. For this example, I have titled column U “number yes”, column V “number I was the presenter”, and column W “total” (see below)

	U	V	W
Feedback	number yes	number "I was the presenter"	Total (Max hours 4 for faculty and residents)
5 Nice unique pitch			
5 .			
5 This is a very novel topic so it was an unusually creative talk			

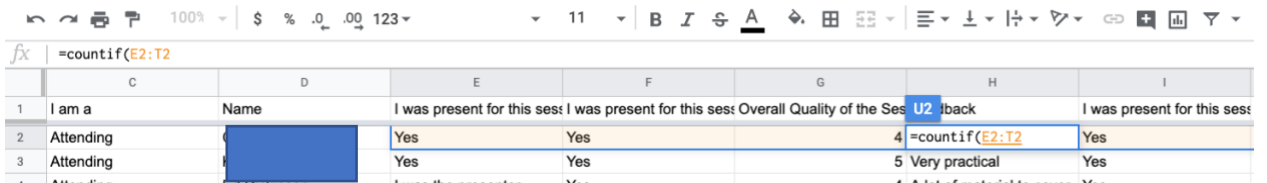
- iii. For column U above (number “yes”) we will enter the following formula, which will calculate the number of times a respondent answered “yes”.

=countif(range, "yes")

Starting by typing the following: =countif(



In this example, the range that should be counted is E2:T2. Columns A-D are excluded as this is categorizing data. You can easily select the range by highlighting each of the boxes you want to include (click, hold, and drag).

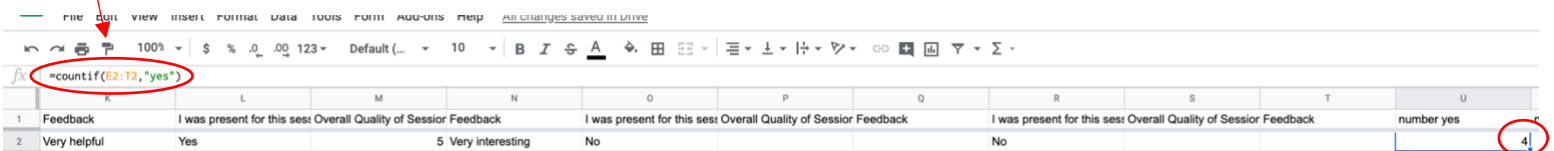


After dragging, release the mouse (do not press "enter" as this will enter a faulty formula) and type the following remaining components of the formula (red text):

=countif(E2:T2, "yes")

Then press enter and this will calculate the number of "yes" responses (4 in this case).

completed formula



	U
	number yes
	4
topic so it was an unusually creative tal	
at and clear slides	
usual topic	
ve probably do not talk about enough	
topic	
tion	
i fantastic to think of the impact on heat	
1 a very relevant topic that does not get	
on a very important topic	
novel and under explored problem in th	
i informative talk that opened my eyes to	
esting subject	
s, especially in residency where we son	
ng this intersection of digital work and pi	
ication season, but I didn't find it useful t	
on of a new complex topic w r w methc	
Great idea to hear from a member of th	

Next, click and drag the blue square at the lower right-hand corner of the box through each row with a response. This will apply the formula to each row and calculate the “yes” responses for each individual.



	U
	number yes
	4
	5
	4
	5
topic :	1
at and	2
usual t	6
	1
ve pro	6
topic	2
tion	6
i fanta	6
1 a ver	4
on a v	6
novel	1
	1
	6
	5
	3
	2
	5
i inform	2
	6
esting	6
s, esp	6
ng this	6
ication	6
	6
	2
on of e	1
Great	2

- iv. Repeat the same steps for the “number ‘I was the presenter’” column. For this example, the formula is the following:

completed formula

=countif(E2:T2,"I was the presenter")

	N	O	P	Q	R	S	T	U	V
1	I was present for this ses: Overall Quality of Sessor Feedback	I was present for this ses: Overall Quality of Sessor Feedback	I was present for this ses: Overall Quality of Sessor Feedback					number yes	number "I was the presenter"
2	Yes	5 Very interesting	No	No				4	0
3	Yes	5 Great conversation regan: Yes		4 Good job making it intera: No				5	

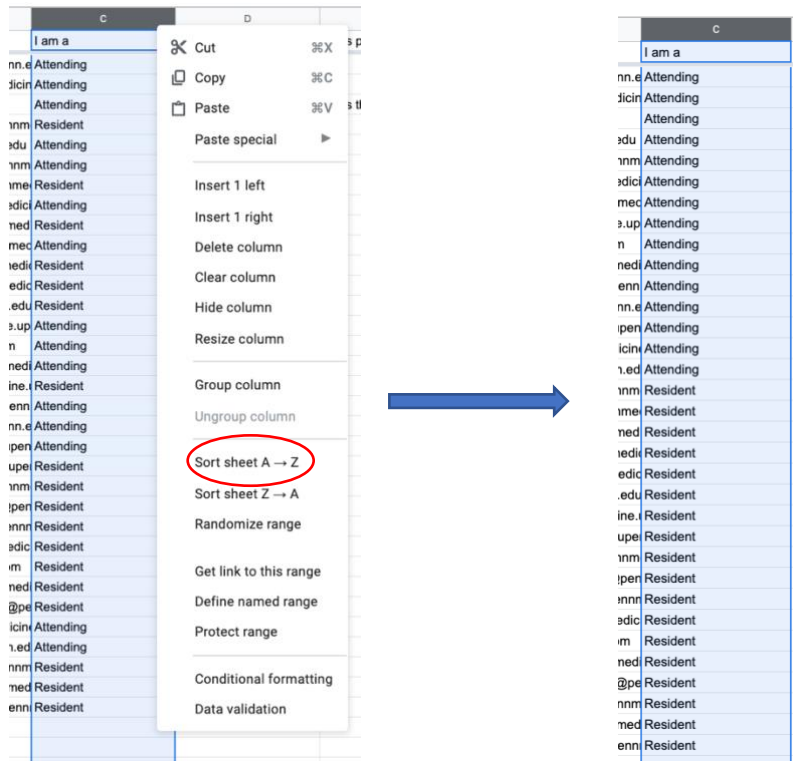
Complete the calculation by pressing enter and drag through the remaining columns.

	U	V	W
	number yes	number "i was the presenter"	Total (Max hours 4 for faculty and re:
	4	0	4
	5	0	5
	4	1	5
	5	0	5
pic :	1	0	1
and	2	0	2
ial t	6	0	6
	1	1	2
pro	6	0	6
ic	2	0	2
l	6	0	6
nta	6	0	6
ver	4	0	4
a v	6	0	6
vel	1	0	1
	1	0	1
	6	0	6
	5	0	5
	3	0	3
	2	0	2
	5	0	5
forr	2	0	2
	6	0	6
ing	6	0	6
esp	6	0	6
this	6	0	6
tion	6	0	6
	6	0	6
	2	0	2
of ε	1	0	1
eat	2	1	3
	6	0	6
	6	0	6

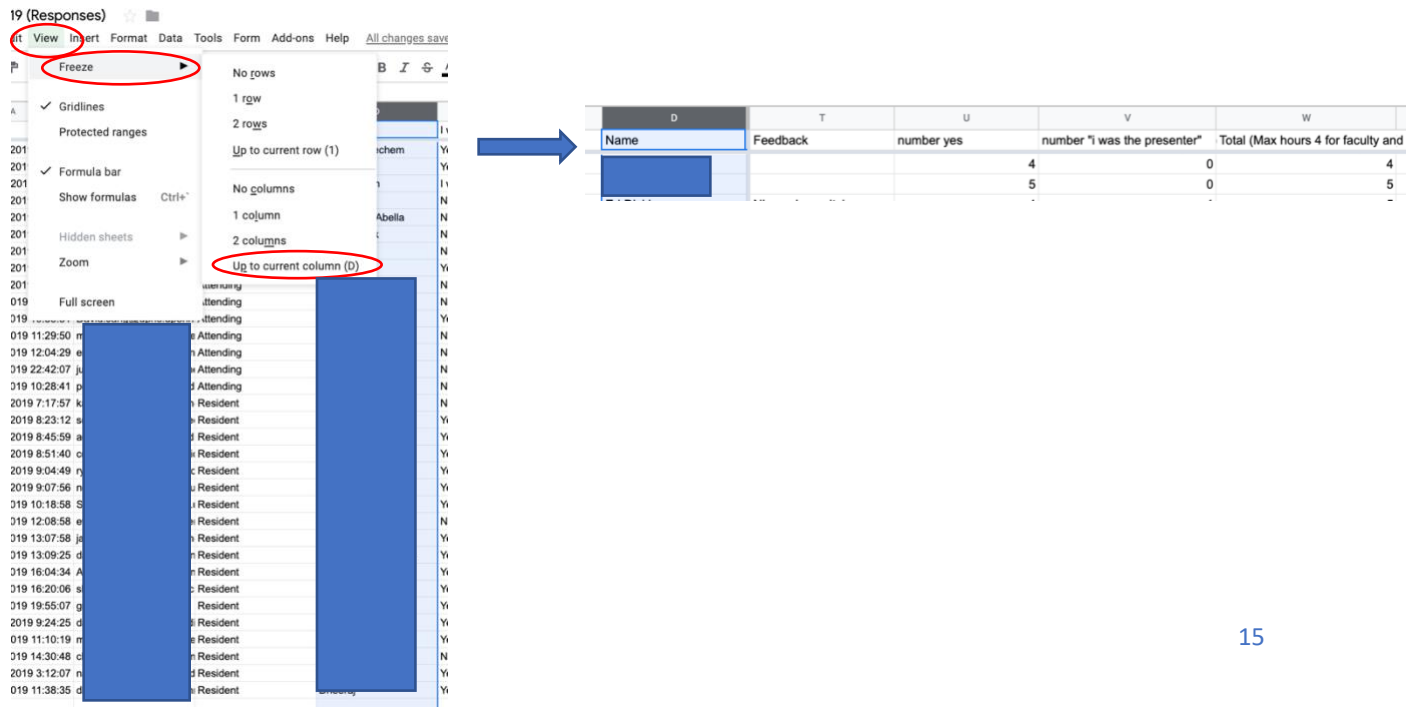
b. Formatting the Sheet for Easier Recording

I find it easiest to record the hours by sorting the sheet by type of respondent and then by freezing the column with the names prior to scrolling over to the total hours.

Sort the Sheet by respondent by right clicking the column you desire to sort and choosing “Sort sheet A→Z”



Freeze name column by selecting the column with the names of respondents, then select “view” → “Freeze” → “Up to current column”. You will now be able to scroll to the “Total” column while still being able to see the names of the respondents.



As you may have noticed, there is sometimes a disconnect between the number of maximum hours available and the total recorded in column W. This is the result of the sessions varying in length of time.

	U	V	W
	number yes	number "i was the presenter"	Total (Max hours 4 for faculty and residents)
	4	0	4
	5	0	5
	4	1	5
	5	0	5
pic	1	0	1
and	2	0	2
ial f	6	0	6
	1	1	2
pro	6	0	6
ic	2	0	2
1	6	0	6
nta	6	0	6
ver	4	0	4
a v	6	0	6
wel	1	0	1
	1	0	1
	6	0	6
	5	0	5
	3	0	3
	2	0	2
	5	0	5
forr	2	0	2
	6	0	6
ing	6	0	6
esp	6	0	6
this	6	0	6
tion	6	0	6
	6	0	6
	2	0	2
of e	1	0	1
eat	2	1	3
	6	0	6
	6	0	6

We clarify how to record the hours in the title of the total column. For example, for this sheet, any faculty or resident whose sum is 4, 5, or 6 will receive 4 hours. Everyone else would receive the total number recorded (i.e. 1, 2, or 3).

3. Special Considerations and Alterations to the Above Process

a. M&M

Occasionally we have sessions that are longer than one hour. For example, 2 -hours credit is given for M&M as it typically runs between 1.5-2 hours. In the case of M&M weeks, I add another column that gives an additional hour for those that attended M&M.

A	B	C	D	T	U	V	W
Timestamp	Email Address	I am a	Name	Feedback	number yes	number "i was the presenter"	Add 1 hour for M&M
12/18/2019 6:15:01		Attending			4	0	0
12/18/2019 7:02:16		Attending			5	0	4

Above you will notice the formula entered was, =countif(O2,"yes"). "O2" was the column that recorded attendance specifically for M&M.

I then increase the range on the "Total" column to also include the newly added column above (range is now U2:W2). Formula entered is =sum(U2:W2). This will give an additional hour for M&M.

U	V	W	X
number yes	number "i was the presenter"	Add 1 hour for M&M	(Max hours 4 for faculty and re
4	0	0	=sum(U2:W2)


Complete the calculation for each respondent by dragging the box just as above. The following is a completed sheet.

U	V	W	X	Y	Z	AA
number yes	number "i was the presenter"	Add 1 hour for M&M	Total (Max hours 4 for faculty and residents; if 4 or more give 4; all others are number recorded)			
4	0	0	4			
5	0	1	6			
4	1	1	6			
1	0	0	1			
2	0	1	3			
1	1	0	2			
2	0	1	3			
6	0	1	7			
1	0	0	1			
1	0	0	1			
5	0	1	6			
3	0	0	3			
2	0	1	3			
2	0	1	3			
1	0	0	1			
5	0	1	6			
6	0	1	7			
6	0	1	7			
6	0	1	7			
6	0	1	7			
4	0	0	4			
6	0	1	7			
5	0	1	6			
2	0	0	2			
6	0	1	7			
6	0	1	7			
6	0	1	7			
6	0	1	7			
6	0	1	7			
6	0	1	7			
2	1	0	3			
6	0	1	7			
6	0	1	7			

This entire process typically only takes about 3 minutes once it has been done a few times.
 The same process can be used to extract resident attendance data.

Extracting Feedback Data

We provide each speaker with the data obtained regarding their session. Below is an example. Graphical data and comments are pulled from the Google Form response data.

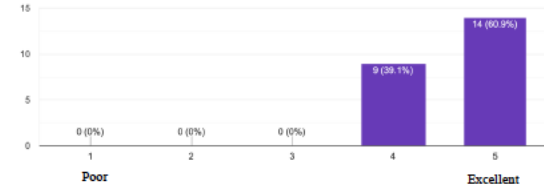
 Department of Emergency Medicine
Hospital of the University of Pennsylvania

[Redacted]

Dear Dr. [Redacted]

Thank you for presenting the [Redacted] session during the Department of Emergency Medicine Education Conference at the Hospital of the University of Pennsylvania on December 18, 2019. Below you will find feedback from your presentation. Please keep this document for your records.

Overall Quality of Session
23 responses




Rating	Count	Percentage
1 (Poor)	0	0%
2	0	0%
3	0	0%
4	9	39.1%
5 (Excellent)	14	60.9%

Comments:

Good job making it interactive

[Redacted Comment Box]


Ground Floor Radio | 3401 Spruce Street | Philadelphia PA 19104 | 215.822.2800 | Fax: 215.822.2852 | emergency@uphs.upenn.edu

 Department of Emergency Medicine
Hospital of the University of Pennsylvania

[Redacted Content]

We appreciate the work that goes into preparing and giving a presentation, and sincerely thank you for your involvement in educating our students, residents, and faculty. If you have any questions, please feel free to contact me.

Sincerely,



Kevin R. Scott, MD MEd
Assistant Residency Director
Assistant Clinical Professor
Department of Emergency Medicine
Perelman School of Medicine at the University of Pennsylvania
kevin.scott@uphs.upenn.edu

Each presenter is sent an email with the above letter attached in PDF form.