

## Using Canvas surveys to gauge student learning

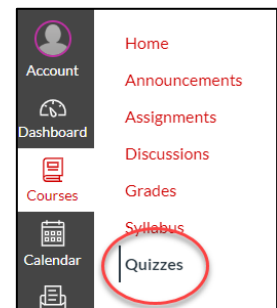
As an instructor, it is useful to adjust your lessons based on which concepts students continue to struggle with. Canvas surveys can be a very useful way of quickly getting that information. Part I of this tutorial explains how to set up a survey in Canvas to determine which aspects of a lesson students feel they understood and which aspects they are still confused about. Part II explains how to view the survey feedback once students have completed it.

### Part I: Designing Canvas surveys

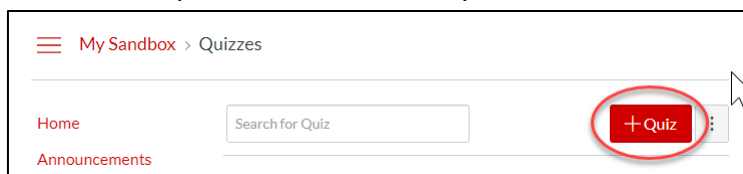
The sections below explain how to use multiple choice (MC) and open ended survey questions to get useful feedback from your students about your lessons. The choice of whether to use MC or open ended questions depends on your goals. MC questions allow you to narrow the possible answers so they have to choose one of your known objectives as 'most' or 'least' confusing. This can ensure that the answers are focused on content and not delivery. Open ended question, however, can allow students space to let us know about very specific concepts or examples they had trouble with. Often, a combination of closed and open ended questions will give you the most useful feedback as an instructor.

#### Building a Canvas survey

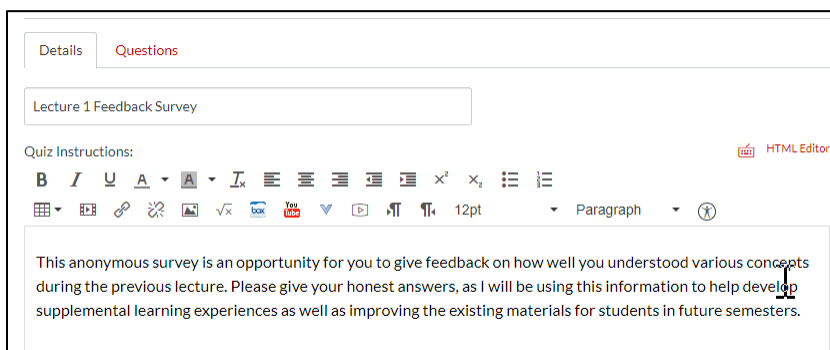
To build a survey in Canvas, you will use the 'Quizzes' tool. Click 'Quizzes' from your left side navigation menu.



Next, click '+Quiz' at the top to start a new survey.



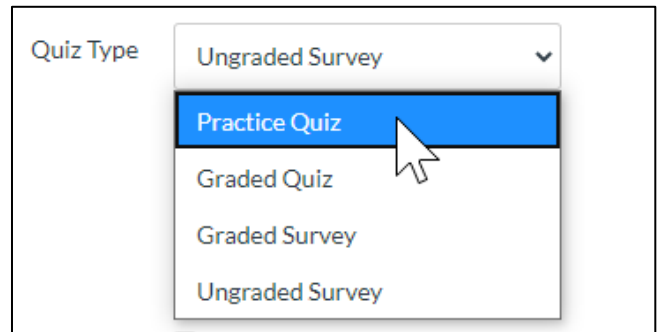
This will open a new screen where you can create your survey. In the top box, give your survey a descriptive name. Below that, explain to your students the purpose of this survey. If your survey will be anonymous, be sure to explain that here so students know that they can answer openly.



Below this area, you will see many different options for quiz settings.

The first dropdown menu asks what type of Quiz this is. You will want one of the Survey options (Note: survey just means there are no 'right' answers to your questions).

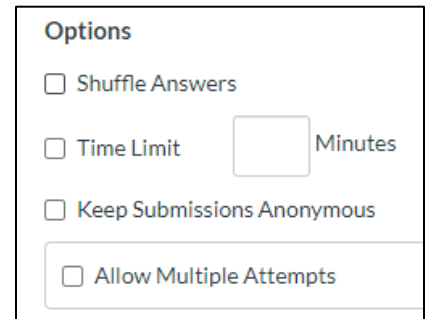
If you choose Graded Survey, they will automatically get points for completion. Ungraded will not give students any points.

A screenshot of a 'Quiz Type' dropdown menu. The menu is open, showing four options: 'Ungraded Survey' (selected), 'Practice Quiz' (highlighted with a blue bar and a mouse cursor), 'Graded Quiz', 'Graded Survey', and 'Ungraded Survey'.

The next set of options are mostly used for Quizzes. Shuffling answers and imposing a time limit can add unnecessary stress to students giving feedback, so it is recommended that you not use them for feedback.

Checking the 'Keep Submissions Anonymous' button is great if you want to make your students feel more comfortable.

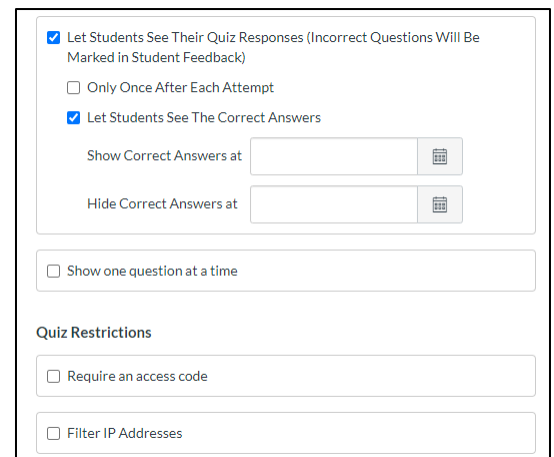
Allowing multiple attempts can be a nice feature in case students think of things after they initially take the survey.

A screenshot of the 'Options' section of a quiz settings form. It contains four checkboxes: 'Shuffle Answers' (unchecked), 'Time Limit' (unchecked) with a text input field and 'Minutes' label, 'Keep Submissions Anonymous' (unchecked), and 'Allow Multiple Attempts' (unchecked).

The next box of settings is mostly relevant for graded quizzes, so you can leave the default settings. Since there are no 'right' answers, it doesn't matter whether you let them see correct answers or not

As long as the survey isn't too long, it's easier to take the survey if they can see the whole thing at the same time

Do not require an access code or filter IP addresses. These settings should only be used for graded quizzes or exams

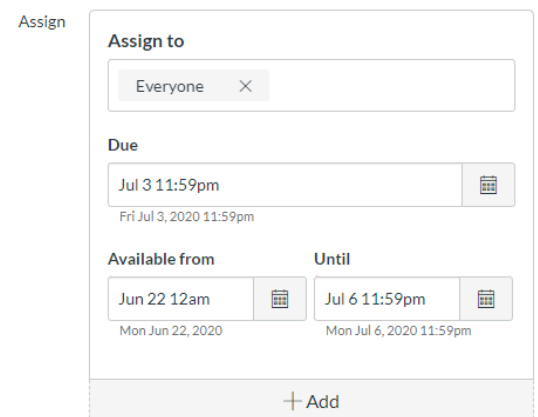
A screenshot of the 'Quiz Restrictions' section of a quiz settings form. It includes checkboxes for 'Let Students See Their Quiz Responses (Incorrect Questions Will Be Marked in Student Feedback)' (checked), 'Only Once After Each Attempt' (unchecked), 'Let Students See The Correct Answers' (checked), 'Show one question at a time' (unchecked), 'Require an access code' (unchecked), and 'Filter IP Addresses' (unchecked). There are also input fields for 'Show Correct Answers at' and 'Hide Correct Answers at' with calendar icons.

At the bottom of the page, you can add a due date. Adding a due date ensures that the survey shows up on your students' to-do list for the course. Otherwise, they might not notice that they need to complete it. Leave the 'Assign to' as 'Everyone' unless you only want a subset of students to take the survey.

Set the due date as the day you would like students to have completed it by.

Set the 'Available From' date as the earliest time you want them taking the survey (usually right after they have access to the material).

Set the 'Until' date as whenever you would like the survey to disappear from the student's Canvas page. This must be after the due date. You can leave this blank if you don't want it to disappear.

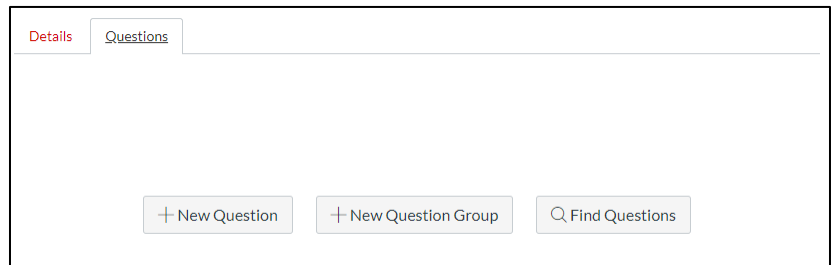
A screenshot of the 'Assign' section of a quiz settings form. It includes a dropdown menu for 'Assign to' set to 'Everyone', a 'Due' date field set to 'Jul 3 11:59pm', and 'Available from' and 'Until' date fields set to 'Jun 22 12am' and 'Jul 6 11:59pm' respectively. There is an '+ Add' button at the bottom.

## Creating Multiple Choice questions

Now that you've got the settings on your quiz ready, it's time to add some questions.

Scroll up to the top of the page and click the 'Questions' tab.

Then click '+ New Question'. This will open a dialogue box where you can add your question and answer choices.



The screenshot shows the 'Questions' tab selected in a quiz editor. At the top, there are two tabs: 'Details' and 'Questions'. Below the tabs, there are three buttons: '+ New Question', '+ New Question Group', and 'Find Questions'.

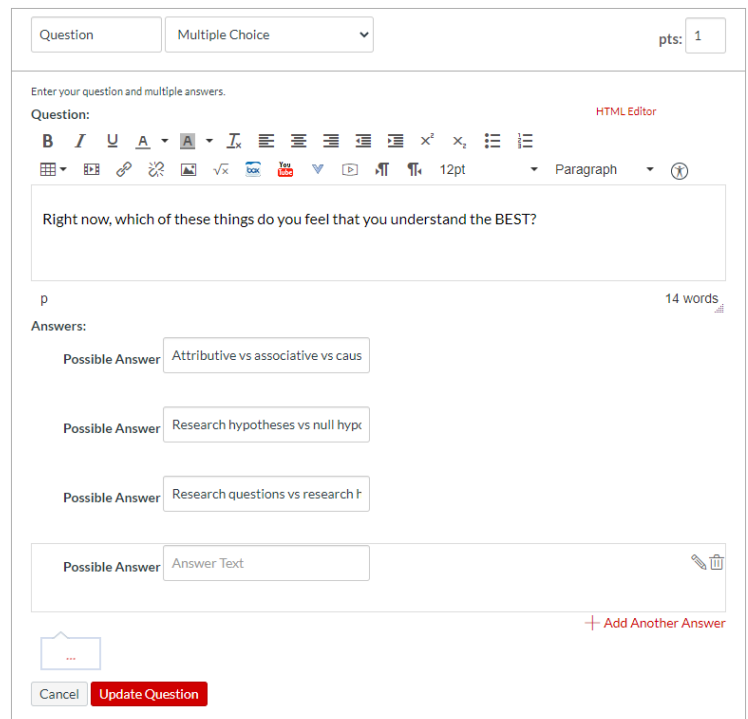
Choose 'Multiple Choice' from the top dropdown menu if it isn't already selected.

Enter your question text in this space. You'll want to pair this with a second question that replaces 'BEST' with 'LEAST'.

This space allows you to enter your possible answer choices. You'll want to use the main topics from your lesson. You'll probably end up having 3-5 options.

If you don't use all the answer choice boxes, click the trash can to remove the extras. If there aren't enough, click '+ Another Answer'.

Be sure to click 'Update Question' after each question you create.



The screenshot shows the 'Multiple Choice' question editor. At the top, there is a dropdown menu set to 'Multiple Choice' and a 'pts: 1' field. Below this is a text area for the question, which contains the text 'Right now, which of these things do you feel that you understand the BEST?'. Below the question text are four 'Possible Answer' boxes. The first three contain the text 'Attributive vs associative vs caus', 'Research hypotheses vs null hyp', and 'Research questions vs research h'. The fourth box is empty and has a trash can icon to its right. At the bottom right, there is a '+ Add Another Answer' link. At the bottom left, there are 'Cancel' and 'Update Question' buttons.

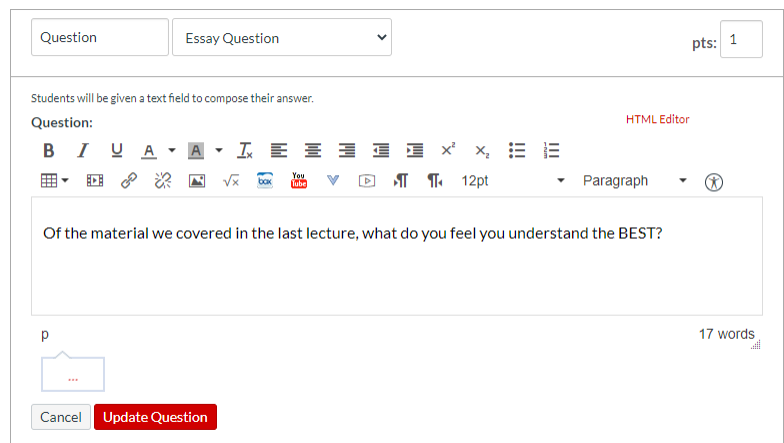
## Creating Short Answer Questions

Click '+ New Question' again at the top of the page to open a dialogue box where you can add your next question.

Change the top dropdown to Essay Question

Type the text of your question in the box. You'll want to create a second question that replaces 'BEST' with 'LEAST'.

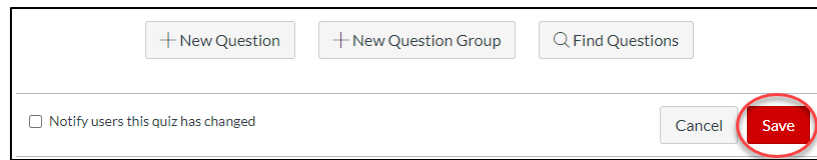
Be sure to click 'Update Question' after each question you create.



The screenshot shows the 'Essay Question' editor. At the top, there is a dropdown menu set to 'Essay Question' and a 'pts: 1' field. Below this is a text area for the question, which contains the text 'Of the material we covered in the last lecture, what do you feel you understand the BEST?'. Below the question text is a large text area for the answer. At the bottom right, there is a '17 words' counter. At the bottom left, there are 'Cancel' and 'Update Question' buttons.

## Finishing your Survey

Once you have finished writing all of your survey questions, click the Save button at the bottom of the page.



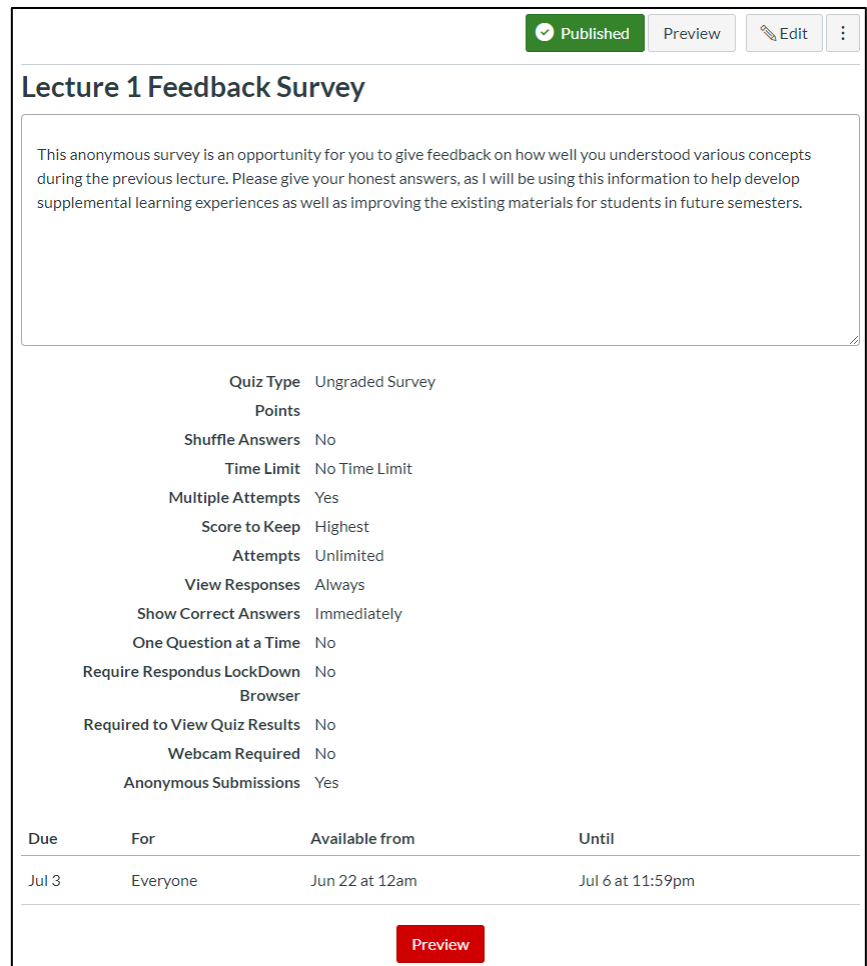
A toolbar for editing a survey. It contains three buttons at the top: '+ New Question', '+ New Question Group', and 'Find Questions'. Below these is a checkbox labeled 'Notify users this quiz has changed'. At the bottom right are two buttons: 'Cancel' and 'Save'. The 'Save' button is highlighted with a red circle.

This will take you to a page listing all of the settings for your survey. Make sure they all look correct.

You'll also want to click the Preview button at the top or bottom of the page. This will let you look at the survey from a student perspective. If you notice any mistakes, you can click 'Keep Editing this Survey' at the top of the page to return to editing mode.

Once all of your settings and questions are correct, be sure to click Publish so that the survey will be available to your students. When you do, the button will turn green and say 'Published' like in this example.

Depending on how you organize your course, you may also want to add it to your modules page or send it as an announcement so your students see it.



A screenshot of the 'Lecture 1 Feedback Survey' settings page. At the top right, there are buttons for 'Published' (green), 'Preview', 'Edit', and a menu icon. The survey title is 'Lecture 1 Feedback Survey'. Below the title is a description: 'This anonymous survey is an opportunity for you to give feedback on how well you understood various concepts during the previous lecture. Please give your honest answers, as I will be using this information to help develop supplemental learning experiences as well as improving the existing materials for students in future semesters.' Below the description is a list of settings:

Quiz Type	Ungraded Survey
Points	
Shuffle Answers	No
Time Limit	No Time Limit
Multiple Attempts	Yes
Score to Keep	Highest
Attempts	Unlimited
View Responses	Always
Show Correct Answers	Immediately
One Question at a Time	No
Require Respondus LockDown Browser	No
Required to View Quiz Results	No
Webcam Required	No
Anonymous Submissions	Yes

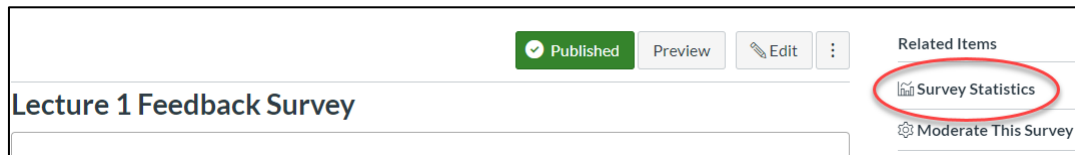
Due	For	Available from	Until
Jul 3	Everyone	Jun 22 at 12am	Jul 6 at 11:59pm

At the bottom right, there is a red 'Preview' button.

## Part II: Accessing Survey Feedback

After your students have all completed the survey, you'll want to look at the feedback to determine which topics are in need of supplemental information or activities.

To find the student responses, go back into the 'Quizzes' area of Canvas and click on the name of your survey. Then, click 'Survey Statistics' on the top right to get to the responses page.

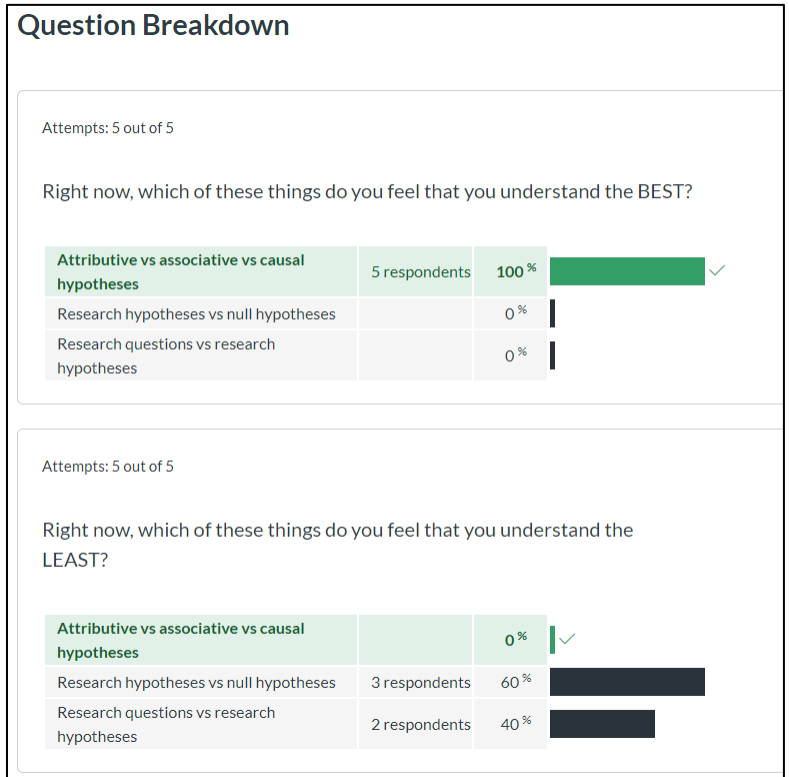


For surveys, the Quiz Summary at the top won't tell you anything useful, since you don't have right and wrong answers, so scroll down to the Question Breakdown to find information about any multiple choice questions.

For each question, you will see the number and proportion of students that gave each response choice. The patterns here can tell us a lot.

For example, on the first question, there seems to be pretty good agreement that the first choice was easiest to understand. This means we can be fairly confident that section was well explained.

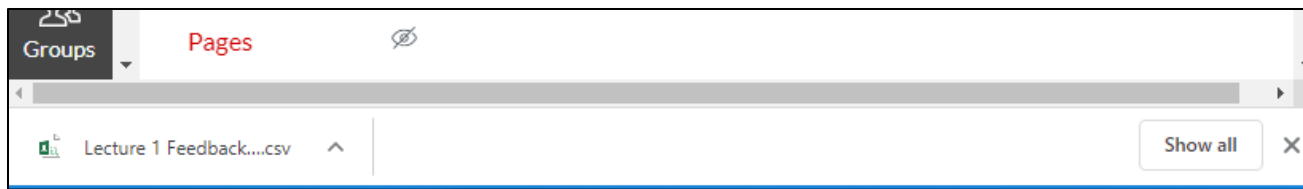
The second question tells us that we actually have a couple of trouble spots. This is where the short answer responses are useful – they can help us figure out what was confusing about these topics.



If you keep scrolling down, you'll notice that for any short answer questions, it tells you how many people responded, but not what their answers were. To find this information, you'll need to scroll back up to the top of the page and click on 'Student Analysis'.



Clicking this button will cause Canvas to create a spreadsheet of all of the quiz responses. This can take a short time, but when it's finished, you'll see the black 'Report has been generated' pop-up over top of the 'Student Analysis' button. How you access this will depend on your computer and browser. Normally, it pops up on the bottom of your browser window like this, but if it doesn't, you may have to look for it in your Downloads folder. If you click on the little pop-up with your survey name, it will open up the spreadsheet file.



Your spreadsheet will look something like this one:

L7

✕

✓

fx

The discussion of null hypotheses was really confusing. I still don't understand what null hypothesis is.

	A	B	C	D	E	F	G	H	I	J	K	L
1	section	section_id	section_sis	submitted	attempt	2545069: R		1 2545097: R		1 2545093: C		1 2545099: C
2	SIOT Cours	81078		2020-06-26	2	Research q		0 Research q		0 ALL OF IT		0 Whether th
3	SIOT Cours	81078		2020-06-24	2	Attributive		1 Research q		0 I don't feel		0 Everything.
4	SIOT Cours	81078		2020-06-24	1	Research q		0 Attributive		1 Research q		0 Attributive
5	SIOT Cours	81078		2020-06-24	1	Attributive		1 Research q		0		0
6	SIOT Cours	81078		2020-06-24	1	Attributive		1 Research h		0		0
7	SIOT Cours	81078		2020-06-24	1	Attributive		1 Research h		0 The many c		0 The discuss
8	SIOT Cours	81078		2020-06-24	1	Attributive		1 Research h		0 I feel like I f		0 I still donâ€
9												

This spreadsheet can be a little confusing at first, so let's break down the information in each column. It can also be hard to see the full information in each box. If you click in any individual box, you can see the full text in the area above the spreadsheet. For example, I clicked cell L7. You can see the first word and a half in the cell, but the full text appears above the spreadsheet. You can also make the columns wider by clicking on the column border and dragging to the right.

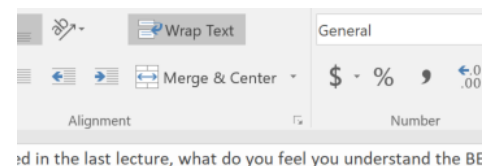
Here's what our spreadsheet is telling us:

- Because this survey was anonymous, there are no student identifiers. Columns A, B, and C are information about the course itself.
- Column D gives you the date and time that each submission was made.
- Column E tells you whether this was the first time the student submitted a response or not. If you didn't allow multiple attempts, everyone will have a value of '1'.
- After this, you start seeing the actual survey data. Columns F through I show data for the multiple choice questions that we already looked at. Columns F & H show the actual student responses. Columns G & I designate whether the student made the 'correct' response. Even though it is a survey without 'correct' answers, Canvas still designates the first answer choice as 'correct'.
- Column J gives the responses to the first short answer question 'What do you understand BEST' and column L shows the responses for 'What do you understand LEAST'.

You can click in the individual cells to read them one at a time above the spreadsheet, but that's not particularly fun or useful. Let's try to fix those columns so we can see the data cleanly. First, let's make the columns wider so more words will fit horizontally. If you're in Excel, you can do that by hovering your mouse over the space between two columns. You'll see your cursor turn into the two intersecting lines like this. When you see this, click and hold the mouse button down while you drag the mouse to the right. This will make the column wider when you let go of the mouse button.

J	K
2545093: Of the material we covered in th	1
ALL OF IT	0
I don't feel like I understood any of this lec	0
Research questions vs. research hypotheses	0

We still can't quite see everything, though, so let's make the words continue onto a second line instead of being hidden to do this, select the column of interest by clicking the letter in the column header (in this case, J). Then click 'Wrap text' above the spreadsheet.



Now we can see all of the responses. This can give us additional information beyond what was in the multiple choice section. For example, in the Multiple Choice section, we learned that all students said they best understood Associative vs Causal hypotheses. Here we have supporting evidence that our examples help, but we also have 1 student saying they didn't understand anything in this lecture. So even though they 'best' understood that concept, they're still struggling.

You will want to follow this same procedure for each of your short answer questions to look for themes as well as suggestions for improvement. If you notice a lot of students having trouble with similar concepts or asking for new examples of a particular topic, that's where you can focus your energy with Just In Time or Barely Late teaching follow ups!

J
2545093: Of the material we covered in the last lecture, what do you feel you understand the BEST?
ALL OF IT
I don't feel like I understood any of this lecture very well.
Research questions vs. research hypotheses
The many clear examples helped me tell the difference between associative & causal hypotheses.
I feel like I have a very clear picture of what is required to call something a "causal" hypothesis