

hi my name is Michael Sullivan I'd like to give you an overview of interactive statistics Third Edition in addition I'd like to talk to you about resources that are available both for the student and the instructor so here we are at the home screen here we have the preface to the instructor and the preface to the student the preface to the student is a video preface that you could assign to your students to get them oriented to the course interactive assignments is where the course resides click interactive assignments and you see you get a full table of contents let's go ahead and look at one particular section I'm going to go to chapter 9 estimating the value of a parameter and then you can see we have four sections within that chapter we have a chapter review a chapter test and chapter projects let's go into one particular section section 9.1 estimating a population proportion over on the right we have a pre-built learning path prepare is a list of my lab exercises that represent content the student should understand before starting the section so it's a preparing for this section assignment it's pre-built in your assignment manager and you can assign it if you want you could also unassign it below that we have read and interact this is where the students actually learn the content so there's an interactive assignment and then there's a guided notebook what the student would do is open the interactive assignment and then simultaneously they would open the

guided notebook

so the guided notebook essentially represents an outline of the content that the student's going to learn within the interactive assignment the expectation is that the student would fill in this guided notebook as they proceed through the Section in this way the student is going to have a textbook written in their own words upon completion of the course the guided notebook is available both as a PDF and as a Word document and it's also available on HTML so this is the launch page for any given section there in the upper left hand corner is where the student would either start or resume an assignment

and the upper right hand corner is their score earned within the interactive assignment and the bottom left is a list of all the slates or pages that the student has to proceed through for the interactive assignment and then a summary on the right there's 25 reading slates and 11 questions or my lab exercises and then we have a list of learning objectives

so let's begin the student would click resume or start if they're just starting they would end up at this first slate if they click resume they're going to end up at the Slate that they left off of previous in a previous session so here is again the outline on the left and the outline on the left can be minimized if you want it out of your way and then these little circles indicate what you've completed and what you have not completed

every section is going to open with a list of objectives and also is going to have a where you've been where you're going go animate video to move from

Slate to slate you can either use the menu on the left or click the next button notice that once you advance from a slate you get a green check mark and then you earn a point for completion of that slick so the whole idea behind the interactive assignment is that we want students to read a little watch a little do a little idea is for them to be completely engaged in the material and again as the student Works through the interactive assignment they would simultaneously be taking notes in the guided notebook so here we have the definition of a point estimate that sort of read a little and then we have an example this particular example is full text so the student would read the problem click show approach which shows the approach to solving the problem and then click show solution to get a complete text solution of this particular problem now once a student completes an example we typically ask them to do a couple of exercises in my lab this happens to be a drop down menu item so we would say a Point estimate is the value of a statistic so on and so forth check answer and we got it correct again you earn points this particular problem is a free response my lab exercise and then the bottom left you have your learning AIDS so I'll just move along from there here's where the interactive assignment becomes a little bit more engaging not only do we give text but we also have the ability to embed video this happens to be what we call a late board video where it's me on screen introducing students to confidence intervals for

proportion again as the student is watching the video they would take notes in their guided notebook and this slide summarizes the key ideas learned within that video and then we have another assessment question another place where we have students do a little besides the my lab exercises is we have the ability to embed statistical applets within the interactive assignment so this particular applet is demonstrating the meaning of level of confidence using simulation and so it says construct a thousand confidence intervals with  $p$  is 0.3 which is the default level of confidence 0.95 and sample size 100 so you can see the student gets engaged in the applet and constructs a thousand intervals and then identifies the proportion of intervals that capture the true population proportion and so the student would go through these various activities to learn the meaning of level of confidence and now this video just reinforces the ideas learned within the previous activity we're typically going to have videos that follow the activities to make sure that the students are learning the information that we want them to from the activity and then we have reading assessment questions so we're reinforcing the meaning of level of confidence here and then there's a caution video we have both caution videos and in other word videos throughout the product I wanted to jump ahead so that you can see another example structure one of the benefits of being able to embed video is that we can provide the students with video Solutions so here we're constructing a confidence interval for a

population proportion and you can see on the left hand side here we have a by hand TI 8384 statcrunch and Microsoft Excel video Solutions so you would tell your students which video solution you want them to watch so let's say you're utilizing statcrunch the student would click the statcrunch video and then my co-author George Woodbury goes through the process of solving the problem utilizing statcrunch over on the right hand side we provide technology step by step which summarizes how to obtain the results using your particular technology and then finally at the end we have an interpretation or sometimes we'll call it a results section and what this does is summarizes the results obtained from the video that way if a student wants to go back and try this on their own and check their work they simply can review or the interpretation sometimes besides showing video Solutions will also provide a complete text solution if we feel that there's benefit in doing so here we're Computing a population standard deviation and Computing these by hand seems like a worthwhile exercise to understand how standard deviation measure spread and for that reason we provide a complete text solution for this particular example and the student continues until they reach the conclusion once the student has completed the read and interact the student can then go to the assessment which is your typical end of section exercises from my lab now now I want to go to the assignment manager so that you can see how these assignments are structured so here is the out of the box preparing for Section 9.1 so if I click

edit then next and you can see these are the list of preparing for problems that we've identified as being necessary for the student to be successful this is your typical assignment manager see you as the instructor can add or remove as many exercises as you like and in addition to that you certainly have the option of unassigning this if you don't want your students to have to complete this if you do assign the preparing for Section 9.1 it's recommended that you use that as a prerequisite to getting into the 9.1 interactive assignment so let me edit that click next and what happens here is each and every slate that you saw in the interactive assignment becomes an assignment within the assignment manager so what this means is that if you wanted to add exercises between 9.1 ra9 and 9.1 r84 you can do so in addition let's say that you don't want to cover determine sample size you can simply select these assignments and then remove them from your assignment in addition remember from here the out of the box product has you going to the end of section mylab problems but if you just want to drop those my lab problems in right here you can do so so you just go chapter nine section one and then pick your exercises and drop them in over here click next and just as a review see how out of the box it says preparing for Section 9.1 is the is set up as a prereq to get into the 9.1 interactive assignment and again we have an out of the box 9.1 homework set that is my lab exercises you as well can edit this as you see fit so really you have the ability to edit

right down to the page level  
so you have a lot of power as the  
instructor  
now part of this interactive assignment  
we have what are called real data  
problems these are problems that are  
based on real data as opposed to  
algorithmically generated  
so-called made up data so I'll just show  
you what one of these looks like so  
here's one from section 4.2 and this  
represents cost return on investment and  
graduation rate for a sample of 50  
colleges within the United States and  
here's the data so University of Wyoming  
so on and so forth along with the data  
and of course you can always open this  
data directly into statcrunch  
where we provide a list of all the real  
data problems within the preface to the  
instructor  
in addition throughout the text we have  
tornado problems so this can be thought  
of as a themed problem these problems  
are based on Alternatives that struck  
the United States between 1950 and 2020.  
so click next here's one from nine point  
section 9.1 that we just covered  
so this is contains the variable F0 that  
was determined for all tornadoes so this  
is whether a tornado is F0 or not and  
you can see  
here's the large sample of the data  
so one represents it was an f-zero  
tornado zero means it was not  
and you can go through that problem so  
there's these tornado problems  
throughout and then last due to this  
addition our technology specific  
problems what that means is that we the  
learning AIDS provide specific  
technology help  
for  
statcrunch the ti graphing calculators

and Excel  
so if I want to have help on Section 4.1  
using statcrunch  
you select the dash SC problems  
so so here are the learning AIDS  
so if I say view an example  
I'll just continue through this so that  
you can see how it says use statcrunch  
to draw the scatter diagram  
and then it says graph highlight Scatter  
Plots so on and so forth in the dialog  
box so the learning AIDS teach your  
students how to get the results using  
statcrunch  
similarly the ti  
Dash TI exercises will demonstrate the  
TI calculator and dash e demonstrate  
Excel so now let me give you an overview  
of all the other resources that you have  
available for both your student and  
yourself we already mentioned the guided  
notebook and the guided notebook is  
available as PDFs as Word documents and  
accessible HTML versions the guided  
notebook was written by George Woodbury  
it follows the material in the  
interactive assignment the student is  
expected to fill out the notebook as  
they progress through the reading  
assignment  
when complete the student has a complete  
text written in their own words  
instructors may want to check each  
student's guided notebook to verify the  
student is completing each interactive  
assignment although the interactive  
assignment has its own little Gradebook  
to also monitor that students are  
completing that assignment in addition  
there is a guided notebook instructors  
Edition that is located under instructor  
tools and then instructor resources  
and there is the instructor's guided  
notebook if we go back to the



interactive assignment and let's go back to section 9.1

each section has what we call additional exercises the additional exercises are traditional paper pencil exercises that are available for each section and so what you can do is the instructor is copy these and drop them into a traditional paper pencil assignment that you would grade by hand the data resources are available in statcrunch from my GitHub website or in in the mylab so you can see there's a wide variety of additional paper pencil exercises that you can utilize for me personally I assign these in canvas and use the canvas speed grader to grade the assignment so that they are a formative assessment

the answers to the additional exercises are in instructor resources in addition we have a Student Activity workbook the Student Activity workbook has activities that allow for a deeper understanding of a variety of topics

these may be used as individual assignments group work or classroom examples so here are the activities from section 9.1 using an applet constructing confidence intervals with M M's

tips for a taxi ride

and so on if we go to instructor tools and instructor resources you also have an instructor's resource guide the instructor resource guide provides an overview of each section of the interactive assignment topics that should be emphasized hints for teaching the material using the various delivery mechanisms such as online or traditional lecture or flipping

and finally it includes additional examples

that may be presented in class that are different from the interactive assignment also under instructor resources or classroom notes the classroom notes are a great resource for instructors teaching a lecture they provide an outline of material within each section that must be filled in by students as an instructor progresses through the lecture in addition they contain examples different from those presented in the interactive assignment and we have one more resource for you learning catalytics is a bring your own device web-based clicker system George and I have written modules that you may use in your classroom if you are interested in the learning catalytics modules please reach out to your Pearson representatives and we'll share the course with you so that's the overview of interactive statistics Third Edition George and I hope that you really enjoy using this product and that your students find it a quality tool for making them successful in introductory statistics