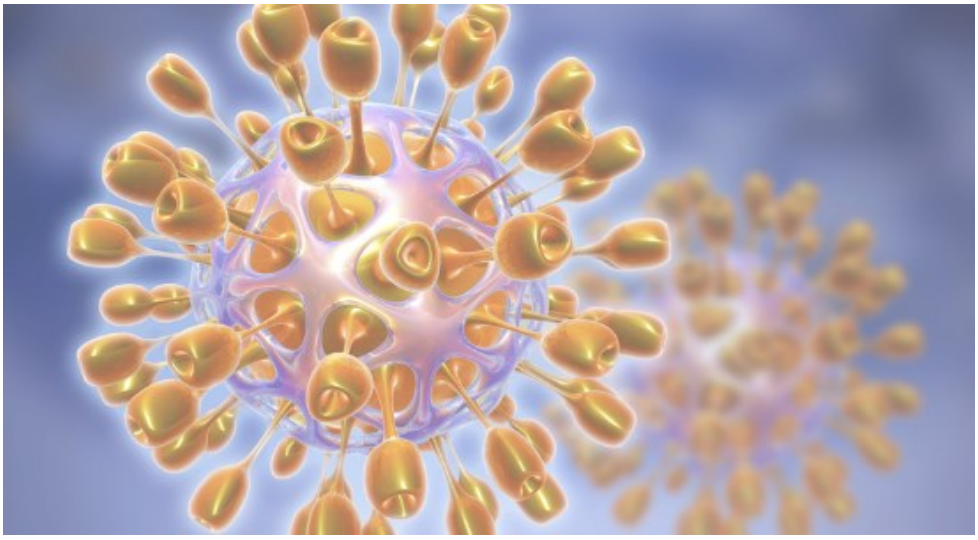
April 13, 2020

StatPREP NEWSLETTER

MAA MATHEMATICAL ASSOCIATION OF AMERICA

A NOTE FROM THE STATPREP TEAM REGARDING COVID-19



Dear StatPREP Community,

The situation regarding COVID-19, the coronavirus, has changed dramatically in the past few weeks. Due to this, we have decided to cancel all StatPREP workshops for summer 2020. We are currently discussing options that include looking at ways to expand the virtual experience to make up for the lack of in-person events as well as options to move the 2020 workshops to 2021. Please note that nothing will be confirmed for 2021 until we get permission from NSF to extend the grant timeline. Stay tuned for future information.

We encourage you to join our StatPREP Community on MAA Connect to stay connected with the leadership team, hub leaders, and fellow StatPREP colleagues, as we all try to navigate this challenging situation.

Wishing you good health!

The StatPREP Leadership Team

Mike Brilleslyper
Danny Kaplan
Ambika Silva
Jenna Carpenter
Kate Kozak
Donna LaLonde

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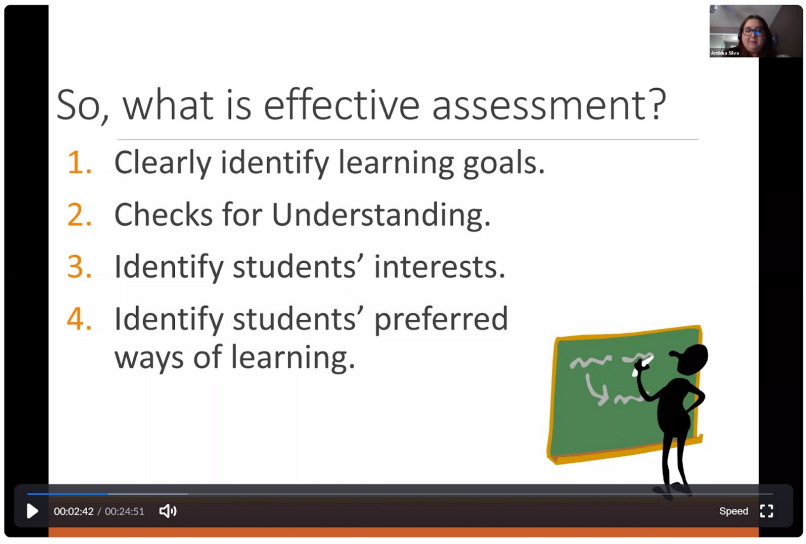
DISCOVERING STATPREP.ORG - ASSESSMENT IN ONLINE SETTINGS

BY AMBIKA SILVA

If you missed a StatPREP webinar, you can always find past recordings on the StatPREP.org website at http://statprep.org/webinar-series/ .

In November, there was a webinar on assessment. Assessment is an integral part of instruction, as it determines whether learning goals are being met and makes us ask, "Are students learning what they are supposed to be learning?" Watch it on statprep.org to learn how to use the StatPREP Little Apps to make meaningful assessments!

Now, the pace of the COVID-19 pandemic has taken us to a place that is dramatically different than it was a few short weeks ago. Many faculty have now been required to move their teaching online, or teach remotely. To help me transition to teaching remotely, I use Zoom, a web conferencing tool, to facilitate and record materials for my students. There are many other screen recording programs available for you to use instead. Creating a video demo on a Little App is a great way to introduce a topic to your students. After posting or sending students your video, you can follow up with an informal assessment as a great way to do an online version of a classroom demo.



The webinar on assessment, seen here in the screenshot, has explanations on how to use the little apps for create tools for your classes. You can do an assessment with multiple-choice answers to gauge whether they watched the video, or do something more open where you have them open up the app on their own and discover something. You can even show them how to use a snipping tool to take screenshots of what they

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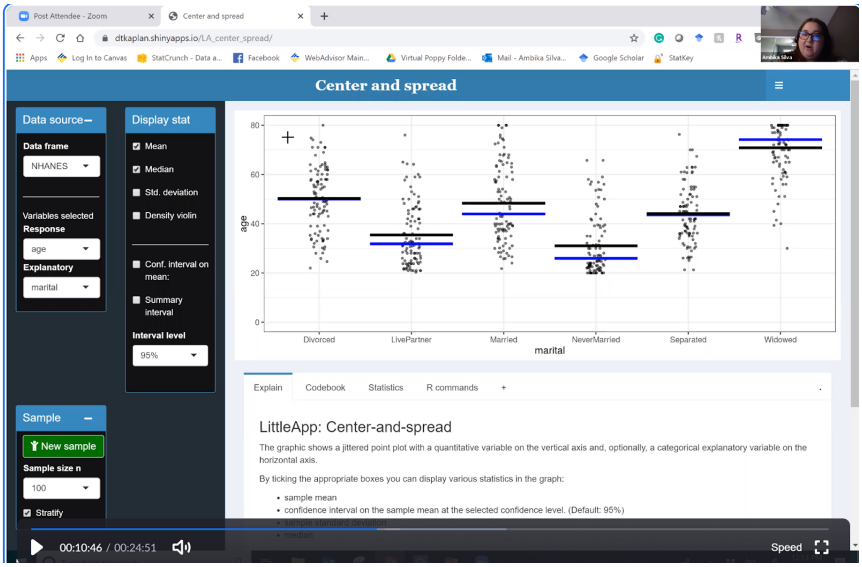
discovered and have them paste them into a word document or Google doc for them to turn in.

Data Centric Learning



StatPREP focuses on the widespread use of data-centered methods and pedagogies in introductory statistics courses. Something that is timely and may be interesting to your students is a recent paper about the incubation period of Coronavirus Disease 2019 (COVID-19) using publicly reported confirmed cases. The article can be found here (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7081172/pdf/aim-olf-M200504.pdf), and here is the data (https://github.com/HopkinsIDD/ncov_incubation/blob/master/data/nCoV-IDD-traveler-data.csv). The estimated median incubation period of COVID-19 was 5.1 days with a confidence interval between 4.5 days and 5.8 days. For assessment you could have your students read all or parts of the article, and either ask questions pertaining to it or make it a conversation online with a discussion board.

Join the Discussion!

If you're looking for more dialog on teaching online with StatPREP methods and tools, join the conversation online at MAA Connect.

MAA CONNECT

Need Help Joining?

Getting Started Guide

Getting Started Video

StatPREP October Webinar

UPCOMING EVENTS

SPRING WEBINARS

THURSDAY, APRIL 23

1 PM EDT

Little App Update!

Hosts: Jennifer Ward & Danny Kaplan

We're approaching the third anniversary of the StatPREP Little Apps. To celebrate, we're launching a brand new set of Apps with a new look and new functionality. Among the changes are a dramatically increased choice of data sets (including those keyed to textbooks often used by StatPREP instructors), the ability to upload your own CSV files, a feature that lets you freeze a display and show it side-by-side with the current display. The original apps will continue to be available at their current web addresses, but we think you'll want to switch to the new ones to benefit from their new capabilities.

Each webinar is recorded and posted on the **StatPREP website** so that you can view previous webinars.

MONDAY, MAY 18

3:30 PM EDT

What Every Instructor Should Know About the Bootstrap

Hosts: Tim Hesterberg & Kate Kozak

Statistical concepts such as sampling distributions, standard errors, and P-values are difficult for many students. It is hard to get hands-on experience with these abstract concepts. I think a good way to get that experience is using bootstrapping and permutation tests. I'll demonstrate using a variety of examples.

Though bootstrapping has enormous potential in statistics education and practice, there are subtle issues and ways to go wrong. For example, the common combination of nonparametric bootstrapping and bootstrap percentile confidence intervals is less accurate than using t-intervals for small samples, though more accurate for larger samples. My goals in this talk are to provide a deeper understanding of bootstrap methods--how they work, when they work or not, and which methods work better--and to highlight pedagogical issues.

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