

NC STATE UNIVERSITY
College of Education
Friday Institute for Educational Innovation

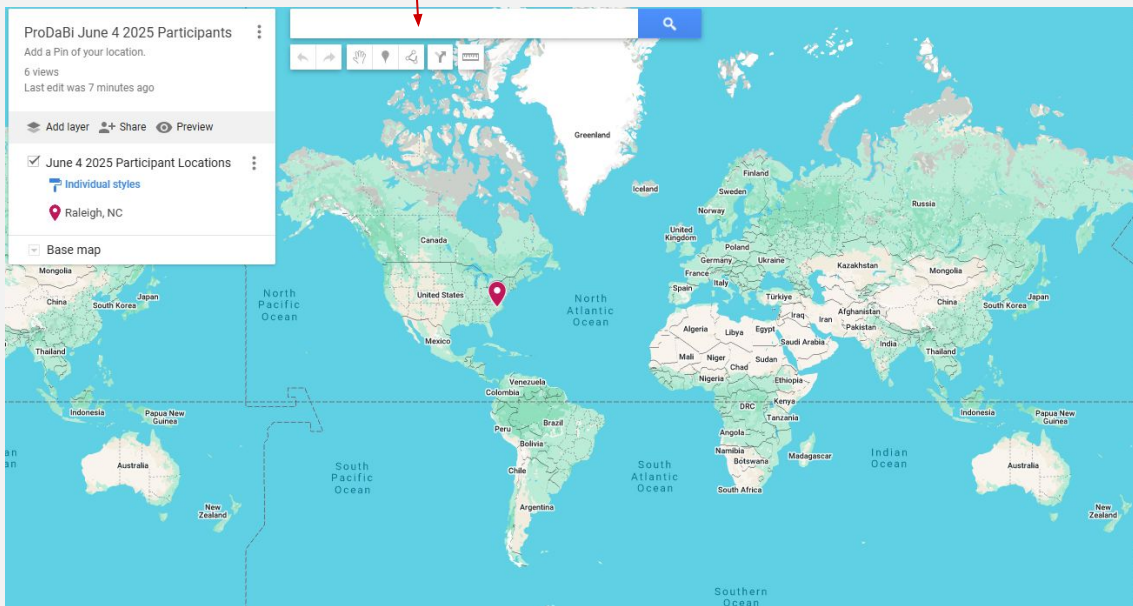
Impacting Statistics and Data Science Teacher Education in the U.S. Through Broader Scale Efforts

Hollylynne Lee
ProDaBi Colloquium June 4 2025



Where Are We? Let's Collect Data

- Use +- and drag to navigate to your location.
- Choose “Add Marker”
- Then click on the map at the location to drop the marker.
- Put City, Country (or City, State) in Title
- In Note put Name, Affiliation



bit.ly/MapJune4

My Background & Context

To situate my perspectives and purposes

- Former middle and high school math teacher
- All degrees in Mathematics Education
- At NC State since 2000, faculty in STEM Education with collaborations with Statistics Dept.
- Teach undergrad-doctoral students, including
 - ◆ EMS/ST 519 Teaching and Learning Statistical Thinking
 - ◆ ST 101 Data and Chance for Teachers
- Senior Faculty Fellow at *Friday Institute for Educational Innovation*
- Directed the [Hub for Innovation and Research in Statistics Education](#)
- Consider myself an educational designer

Two Critical Educational Design Projects That Launched the More Recent Efforts

Preparing to Teach Mathematics with Technology funded 2004-current

PTMT has impacted teaching and learning of mathematics through



500+ College Faculty



8000+ Prospective
Teachers



50 States



NC STATE
UNIVERSITY

**MIDDLE
TENNESSEE**
STATE UNIVERSITY


UNIVERSITY OF NORTH CAROLINA
CHARLOTTE



ptmtproject.com



PTMT Materials Related to Teaching Statistics

ptmtproject.com



Examining Students' Practices in Algebra and Function

These materials connect with the Teaching Algebra materials to support teachers' development of pedagogical skills related to professional noticing of student thinking and engaging in productive discussions in technology-mediated learning environments. Teachers engage in tasks and analyze videos of students' work.



Teaching Statistics Investigations

This set of materials includes four chapters that prepare teachers to use large multivariate data and a new free online tool, CODAP, to engage in similar investigations as in Chapters 1-4 of the Teaching Data Analysis and Probability materials.



New Teaching Geometry

Coming Soon.....



Voices from the Field

A collection of video clips representing how real teachers use technology in their mathematics classrooms. Some clips illustrate how teachers and students use technology in lessons. Other clips show teachers and experts discussing issues related to their planning and implementation of technology.



Teaching Algebra

The Teaching Algebra materials consist of 7 chapters that provide strategies for teaching algebra with dynamic technology explorations of important topics such as variables, equality, rate of change, and functions.



Teaching Data Analysis and Probability

This set of materials includes 6 chapters that utilize tools such as TinkerPlots, Fathom, Excel, and graphing calculators to engage teachers in statistics investigations using multivariate data. Topics include learning to teach distributions, variability, bivariate relationships, probability, and simulations.



Teaching Geometry

The 7 chapters in the Teaching Geometry materials engage teachers with how dynamic approaches to geometry can change students' understanding of concepts such as polygon properties, transformations, similarity, and symmetry.



Forging Connections Between Geometry and Functions

A collection of materials on an *external site* that were developed through a PTMT-related project. Activities use web-based Sketchpad activities to develop deeper understandings of functions through a geometric approach.





MOOC-Ed

MASSIVE OPEN ONLINE COURSES FOR EDUCATORS

Scaling-Up for Online Teacher Learning

**NC STATE
UNIVERSITY**

College of Education
Friday Institute for Educational Innovation

CONNECT WITH PEOPLE FROM ACROSS THE COUNTRY...



... AND AROUND THE WORLD!

2015-2025

place.fi.ncsu.edu

Free Online Courses for Practicing Teachers

50 states, 106 countries, 8500+ enrolled

	Course Title	Sections	Enrolled
	Teaching Statistics Through Data Investigations	7	3,128
	Teaching Statistics Through Inferential Reasoning	3	789
	Teaching Mathematics with Technology	5	3,644
	Amplifying Statistics and Data Science in Classrooms (<i>summer 2021</i>)	1	940 (5/1/2025)



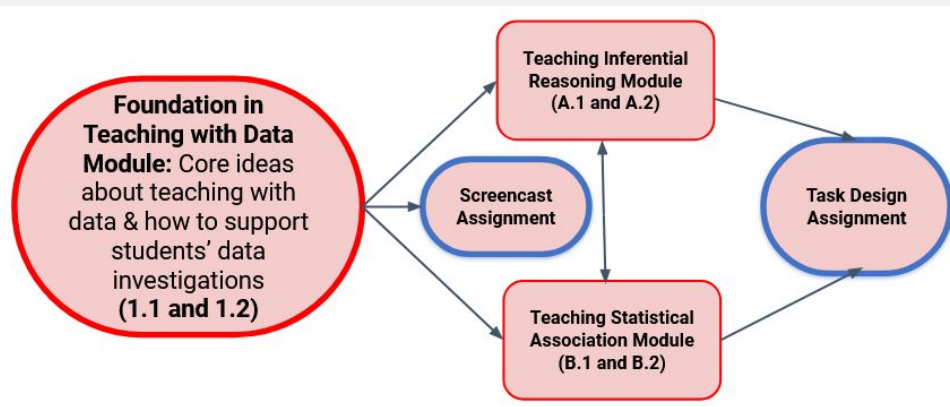
Build Online Modules to Support Preservice Teacher Preparation

Enhancing Statistics Teacher Education through E-Modules

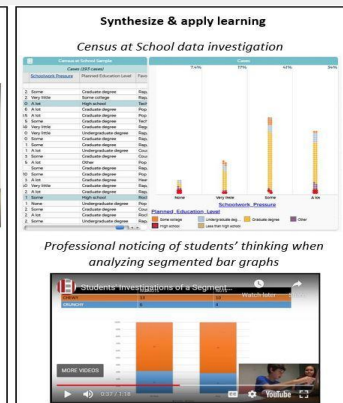
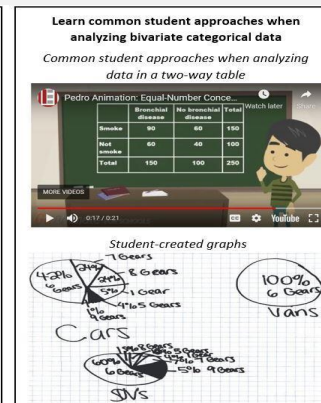
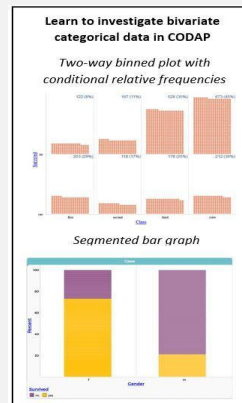
2016 - 2021



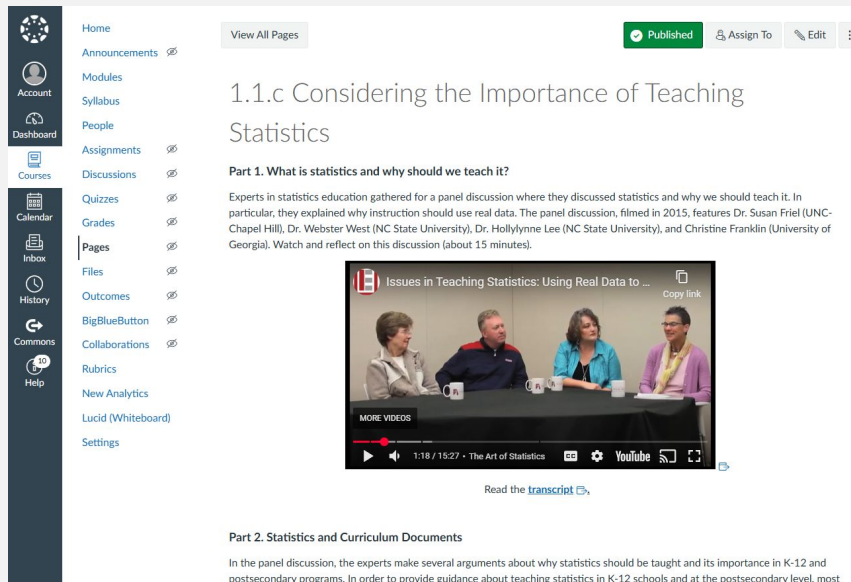
Enhancing Statistics Teacher Education Through E-Modules



40+ hrs of multimedia material
 Data Investigations in CODAP
 8 In-Person and Web-based Faculty Workshops
 500+ registered users



Materials are FREE on Canvas Commons and can be imported into learning management systems (LMSs)



Home View All Pages Published Assign To Edit

1.1.c Considering the Importance of Teaching Statistics

Part 1. What is statistics and why should we teach it?

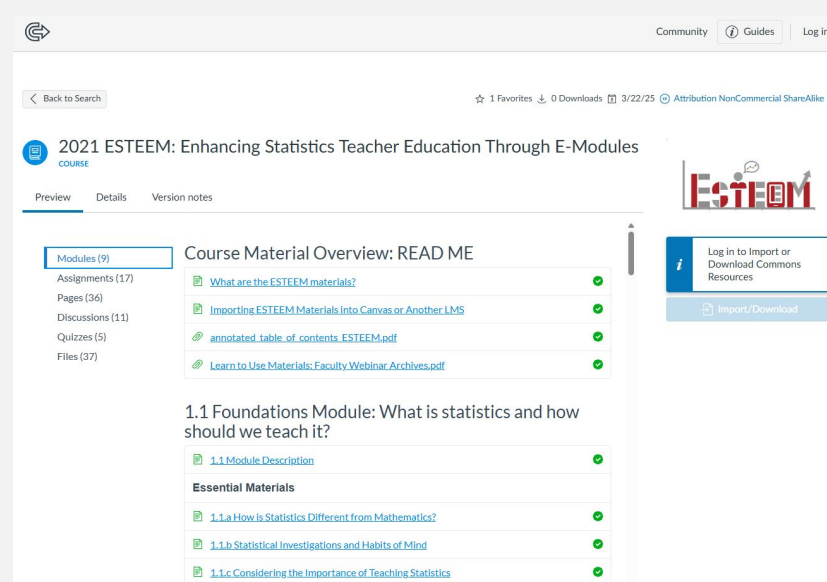
Experts in statistics education gathered for a panel discussion where they discussed statistics and why we should teach it. In particular, they explained why instruction should use real data. The panel discussion, filmed in 2015, features Dr. Susan Friel (UNC-Chapel Hill), Dr. Webster West (NC State University), Dr. Hollylynne Lee (NC State University), and Christine Franklin (University of Georgia). Watch and reflect on this discussion (about 15 minutes).

Issues in Teaching Statistics: Using Real Data to ...

Read the [transcript](#).

Part 2. Statistics and Curriculum Documents

In the panel discussion, the experts make several arguments about why statistics should be taught and its importance in K-12 and postsecondary programs. In order to provide guidance about teaching statistics in K-12 schools and at the postsecondary level, most



2021 ESTEEM: Enhancing Statistics Teacher Education Through E-Modules

Course Material Overview: READ ME

- What are the ESTEEM materials?
- Importing ESTEEM Materials into Canvas or Another LMS
- annotated table of contents ESTEEM.pdf
- Learn to Use Materials: Faculty Webinar Archives.pdf

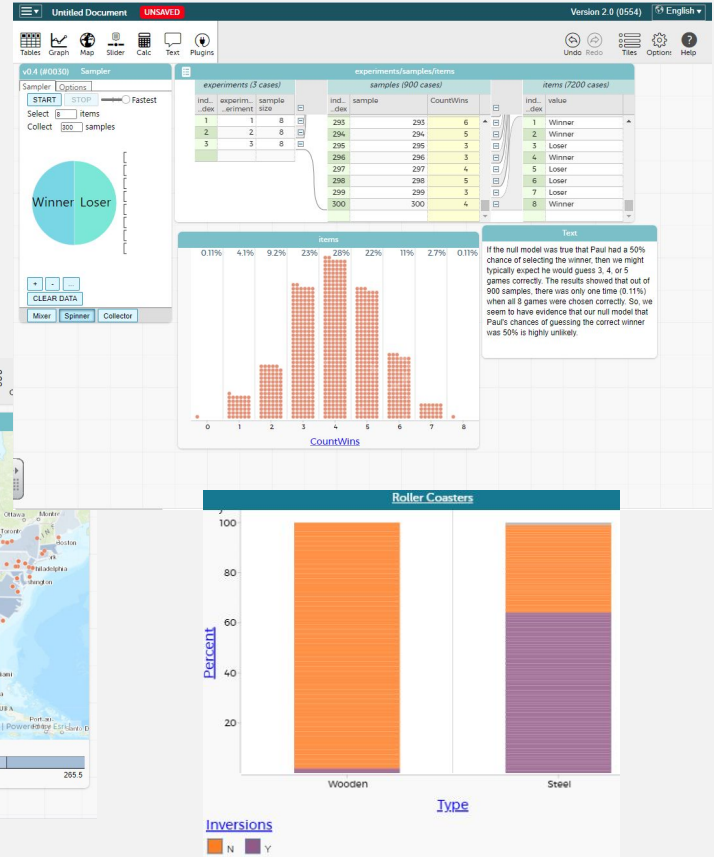
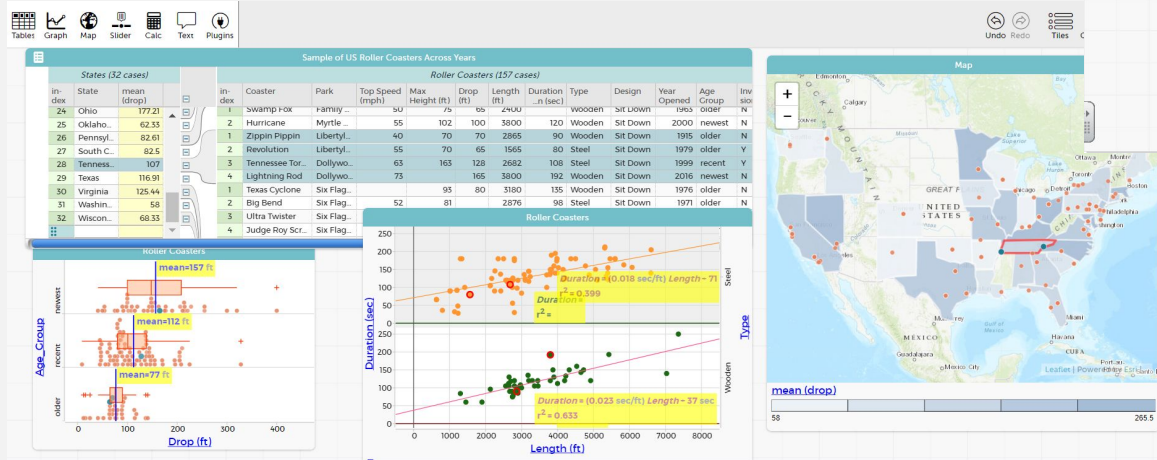
1.1 Foundations Module: What is statistics and how should we teach it?

- 1.1 Module Description
- 1.1.a How is Statistics Different from Mathematics?
- 1.1.b Statistical Investigations and Habits of Mind
- 1.1.c Considering the Importance of Teaching Statistics

bit.ly/2021Esteem

Contribute to Design of an Online Data Tool

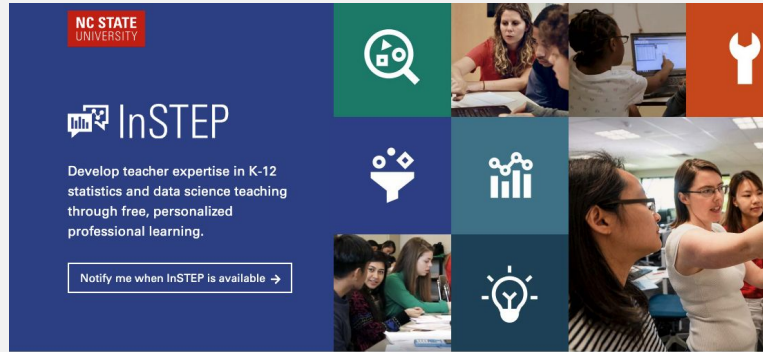
CODAP: Common Online Data Analysis Platform





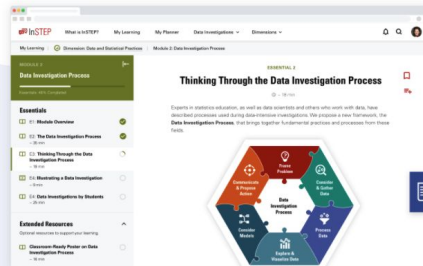
Taking Online Professional Learning for Practicing Teachers to the Next Level

Personalized Learning for Preparing to Teach Statistics and Data Science for Ages 11-18+



InSTEP

instepwithdata.org



FREE for All!
Public Launch
March 2023



**Invigorating Statistics and Data Science
Teaching through Professional Learning**

instepwithdata.org

Principal Investigators:

Hollylynne Lee
Gemma Mojica
(former Co-PIs: Alex Dreier,
Lauren Acree)

Research Scholar/Project Manager
Emily Thrasher

NC State University Project Team:

Bruce Graham, Michelle Pace, Adrian Kuhlman,
Matty Grossman

RTI International Project Team:

Patrick Brown, Britta Hansen, Andrzej Proczka
(former lead, John Vavricka)



Friday Institute for Educational Innovation

2019 - current
3.1 million



fi.ncsu.edu

Two Primary Learning Experiences: Learn to Do Data Investigations & Modules to Learn to Teach with Data

Use Variety of
Tech Tools, but
primarily CODAP

The screenshot displays the InSTEP Learning Hub interface. At the top, a navigation bar includes the InSTEP logo, a 'Learning Hub' link, and menu items for 'Dashboard', 'Data Investigations', 'Dimensions', and 'Microcredentials'. On the right of the navigation bar are links for 'FAQ', 'About InSTEP', and a user profile icon.

The main content area is divided into two primary sections:

- Data Investigations**
In-depth Learning Experiences
Start here to dive into a data investigation to experience working with "big data" and envision what may be possible in your classroom.
- Dimensions of Teaching Statistics and Data Science**
Self-paced Modules
Pursue your own professional learning pathway by choosing a module in a specific area of teaching statistics and data science that interests you.

Under 'Data Investigations', there are two featured cards:

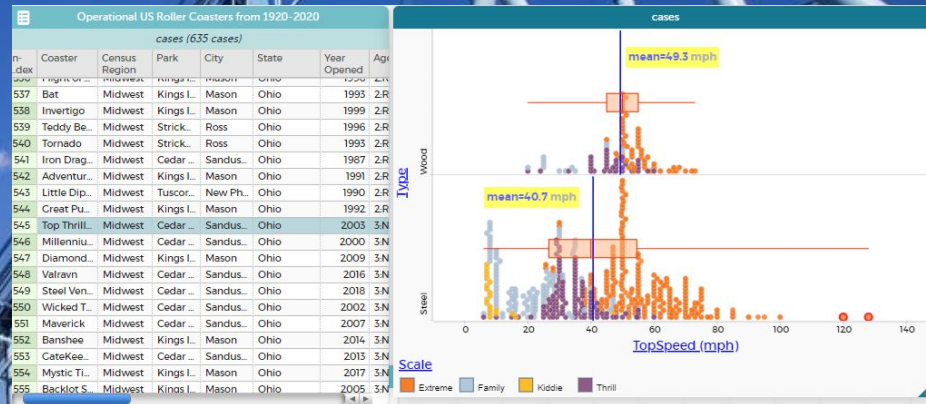
- DATA INVESTIGATION 1: US Roller Coasters**
Engage in a data investigation to compare, contrast and examine trends in US roller coasters using a technology tool, CODAP.
100% Completed
- DATA INVESTIGATION 2: Census at School**
In this data investigation you have an opportunity to feel awash in a bigger, messier dataset through sampling student-generated data from the Census at School Project.
50% Completed

Under 'Dimensions of Teaching Statistics and Data Science', there are two featured cards:

- Data and Statistical Practices**
Explore foundational processes, practices, and ways of thinking used in statistics and data science.
2 Modules ▾ 27% Completed
- Central Statistical Ideas**
Develop deeper understanding of key statistical and data content taught in K-12 curriculum.
2 Modules ▾ Not Started

At the bottom of the interface, there are four circular icons representing different learning experiences: a lightbulb (ideas), a bar chart (data), a checklist (tasks), and a speech bubble (communication). Below these icons, there are two more circular icons: a person with a magnifying glass (search) and a wrench (tools).

Learning Experience 1: Data Investigations with “Big” Multivariate Data



Learn to Do Data Investigations with CODAP



DATA INVESTIGATION 1 US Roller Coasters

Engage in a data investigation to compare, contrast and examine trends in US roller coasters using a technology tool, CODAP.

100% Completed



DATA INVESTIGATION 2 Census at School

In this data investigation you have an opportunity to feel awash in a bigger, messier dataset through sampling student-generated data from the Census at School Project.

63% Completed



DATA INVESTIGATION 3 Popular Cereals

Engage in a data investigation to examine trends in nutritional characteristics of over 200 popular cereals in a multivariate dataset using CODAP, a technology tool.

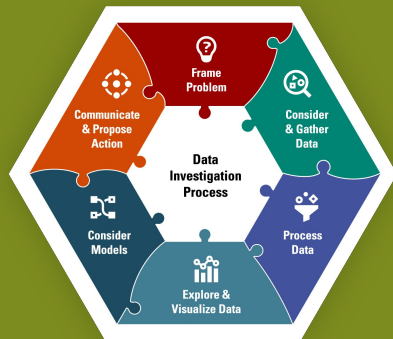
100% Completed



DATA INVESTIGATION 4 Fish Catch Data

Through investigating fish catch data from the NOAA, you will learn how to use linear regression to model relationship between length and weight of different species of fish.

100% Completed



DATA INVESTIGATION 5 Democratic Representation Part 1

In this data investigation, explore what it means to be representative using data from the 117th US Congress and the US Census.

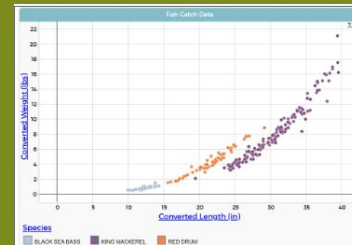
Not Started



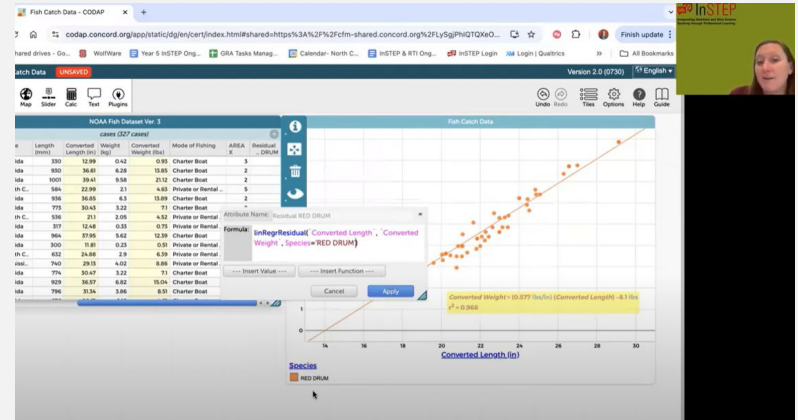
DATA INVESTIGATION 6 Democratic Representation Part 2

In this data investigation, use simulations & sampling distributions to determine whether the 117th US House of Representatives is representative of the Asian population.

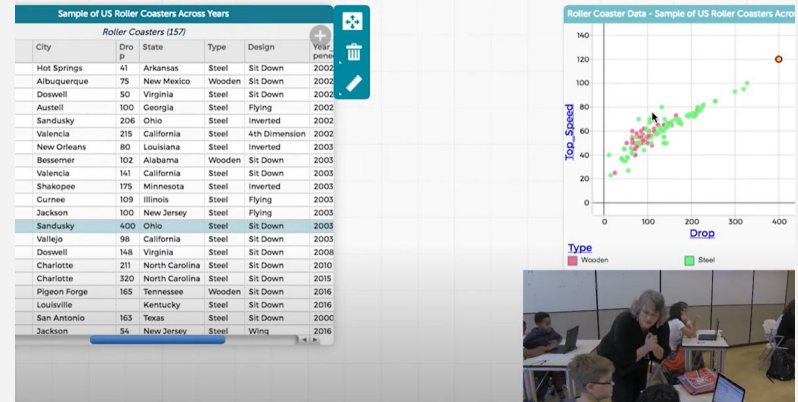
10% Completed



“Expert Insights” for Examining Data in CODAP



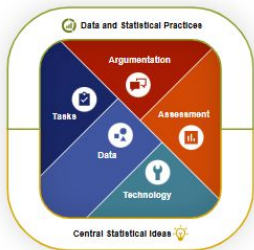
Examples of Pedagogical Moves for Helping Students Work with Data



Dimensions of Teaching Statistics and Data Science

Self-paced Modules

Pursue your own professional learning pathway by choosing a module in a specific area of teaching statistics and data science that interests you.



[Learn More About Dimensions →](#)



Data and Statistical Practices

Explore foundational processes, practices, and ways of thinking used in statistics and data science.

2 Modules ▼ 64% Completed



Central Statistical Ideas

Develop deeper understanding of key statistical and data content taught in K-12 curriculum.

2 Modules ▼ Not Started



Tasks

Learn to use classroom activities that support developing statistical ideas through engaging students in data and statistical practices.

3 Modules ▼ Not Started



Data

Develop strategies and skills for collecting and using real, motivating data to engage students in investigations.

1 Module ▼ 17% Completed



Technology Tools

Use tools that support students with data and statistical practices and develop advanced skills to apply technology in your classroom.

1 Module ▼ Not Started



Argumentation

Examine ways to promote discourse focused on data-based arguments and how to facilitate productive classroom discussions.

2 Modules ▼ 25% Completed



Assessment of Student Thinking

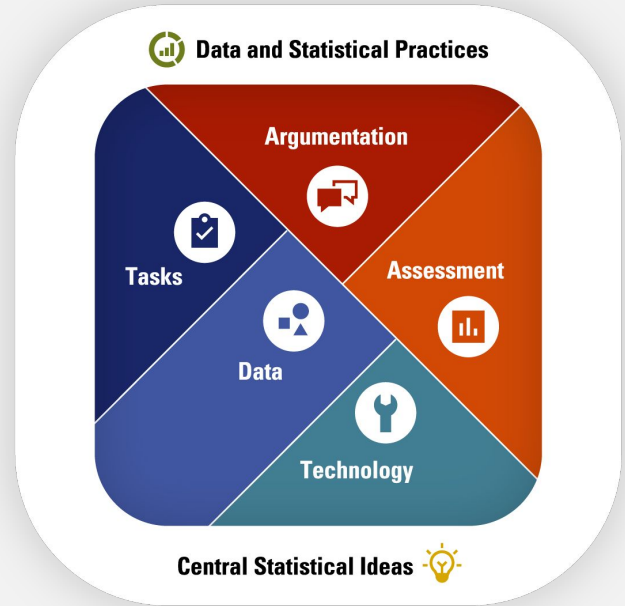
Learn to evaluate students' thinking about data and statistics to inform instructional decisions.

1 Module ▼ Not Started

Learning Experience 2: Self-Paced Multimedia Modules



InSTEP Modules are organized by anchoring professional learning in **Seven Dimensions of Teaching Statistics and Data Science** which describe important aspects that support teaching and learning environments for statistics and data science (adapted from Ben-Zvi et al., 2018)



**Effective Learning
Environments for
Statistics and Data
Science**

Learn about data
practices and
investigation cycles





Data and Statistical Practices

Explore foundational processes, practices, and ways of thinking used in statistics and data science.

There are 2 Modules in this Dimension:

MODULE

1

What is Statistics and Data Science?

~1.8 hours

In this module, you will learn about the big ideas, habits of mind and dispositions of statistics and data science.

6 Essentials | 10 Extended Resources

 **Saved to Playlist**

Continue →

MODULE

2

Data Investigation Process

~1.5 hours

In this module, you will be introduced to a 6-phase data investigation process that extends the statistical problem solving process to incorporate the processes and practices of data scientists and other professionals who work with big data.

5 Essentials | 11 Extended Resources

 **Save to Playlist**

Continue →

5-6
“Essentials”
with
completion
tracking

3-10
“Extended”

 Learning Hub Dashboard ▾ Data Investigations Dimensions ▾

FAQ About InSTEP  

MODULE 1
Data and Statistical Practices
100% Completed

Essentials

 E1: Module Introduction: Importance of Statistics and Data in Our World ~5 Minutes 

 E2: Statistics as an Art and Science of Data ~35 Minutes 

 E3: What do Statisticians and Data Scientists do? ~15 Minutes 

 E4: Differences Between Statistics and Mathematics ~15 Minutes 

 E5: Statistics and Data Habits and Dispositions ~25 Minutes 

 E6: Examining Students' Habits and Dispositions ~15 Minutes 

Extended Resources

Optional resources to support your learning.

 Statistics for All -- The Flip Side of Quantitative Reasoning ~10 Minutes 

 Mathematical Practices Through a Statistical Lens ~25 Minutes 

ESSENTIAL 1

Module Introduction: Importance of Statistics and Data in Our World

⌚ ~5 Minutes

In a world filled with technology that allows for the collection and storage of massive amounts of data, it is imperative that all students get opportunities to learn how to use data in their everyday life and to prepare for the ways many different careers use data and statistics. This module is intended to give you a sense of the disciplines of statistics and data science and an introduction to key practices and ways of reasoning with data. Watch this brief video to hear how professionals from varied careers such as journalism, sports, healthcare, transportation, agriculture, video game development, and many others, use data and statistics. You and your students can learn why data and statistics are so important, why most college majors require at least one course in statistics, data analysis, or data visualization, and that many businesses are expanding the ways data and statistics is infused and integrated into their workflow.

 Statisticians in Other Fields





⌚ Watch later

➦ Share

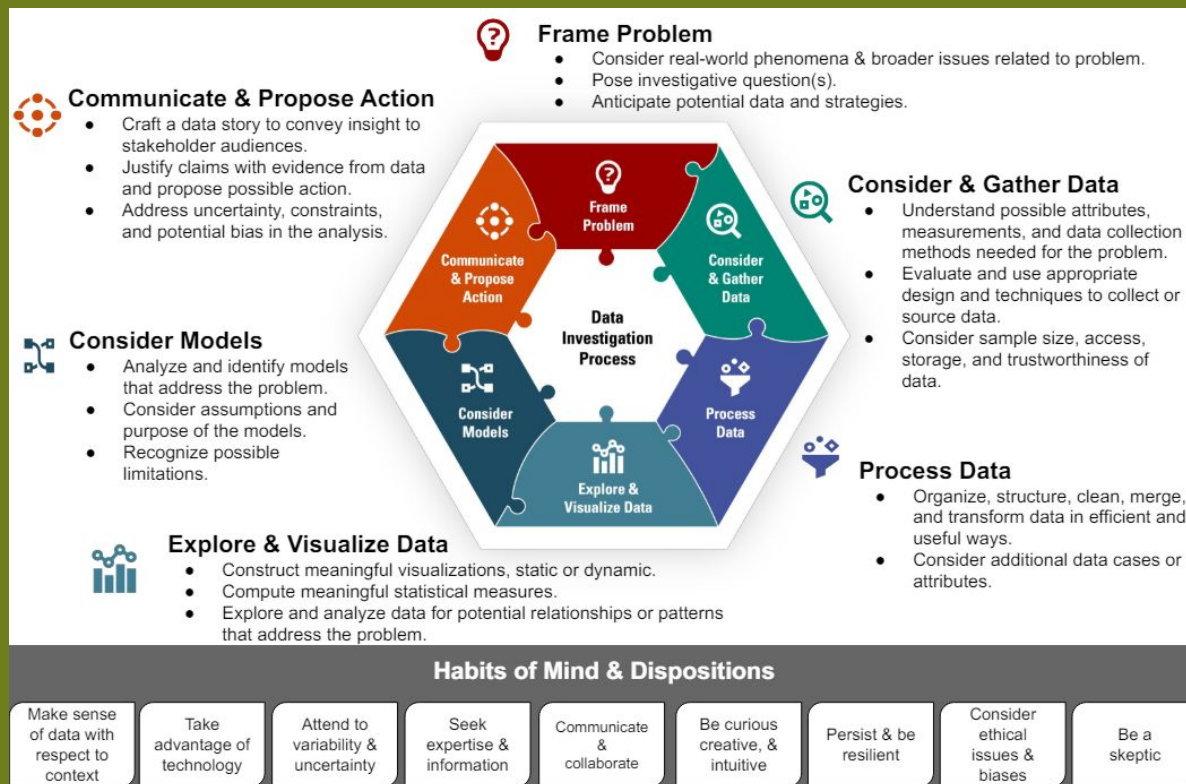



Save Resource
or Save to a
“Playlist”
Collection

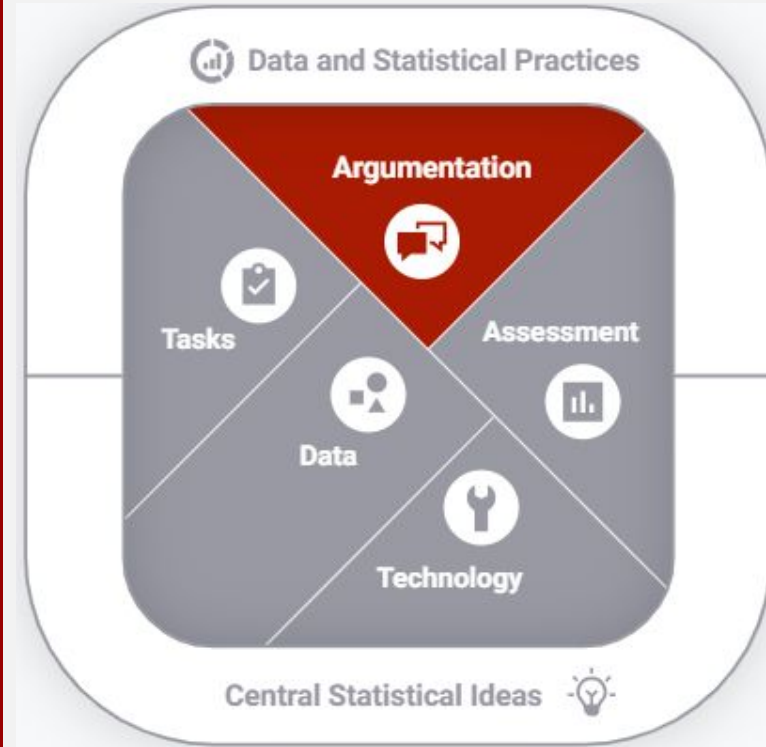
Start a
Discussion

 2

Extended Resources Are Often “Classroom Ready”



Learn to orchestrate
discussions with and
about data



Argumentation Module 2: Making Sense of Data Visualizations

Completion
Does Not
Need to be
Linear and is
Tracked

Dimension: Argumentation | Module 2: Making Sense of Data Visualizations

MODULE 2
Argumentation
38% Completed

Essentials

- E1: Module Introduction: Supporting Classroom Discourse about Data Visualizations ~5 Minutes
- E2: Importance of Discourse about Data Visualizations ~20 Minutes
- E3: Framing Discourse to Support Making Sense of Data Visualizations ~20 Minutes
- E4: Framing Discourses with Slow Reveal Graphs ~40 Minutes
- E5: Climate Change in Our Community Investigation ~30 Minutes
- E6: Data Visualizations for Use in Classrooms ~30 Minutes

Extended Resources

Optional resources to support your learning.

- Classroom Ready: Discourse Prompts: Making Sense of Data Visualizations ~10 Minutes

ESSENTIAL 2
Importance of Discourse about Data Visualizations
~20 Minutes

Data visualizations offer “an alternative venue for teaching core statistical topics and an opportunity to emphasize statistical thinking over calculations.” (Nolan & Perrett, 2016, p. 268)

Visualizations are increasingly used in popular news and media outlets to communicate information to various audiences and provide visuals to support claims or arguments with data. While simple bar graphs, histograms, pie graphs, scatterplots and line graphs (trend lines or time series graphs) were once the standard displays used in media, today’s advanced technological capabilities have led to many new ways to visualize data. Such visualizations often use color, shape, size, and geographic or spatial location to represent aspects of data or statistical measures such as an average, proportion, or ranking. For example, the visualization on this map uses different colors for each county boundary in the U.S. to represent the highest ranked climate threat (e.g., yellow is used for water stress, purple represents sea level rise) with darker shades indicating a higher threat. (Map visualization used with permission from [New York Times “What’s Going on in this Graph: Climate Threats”](#)). On the NYT’s webpage, a user can interact with this visualization to investigate the climate risk rankings by hovering over a county on the map.

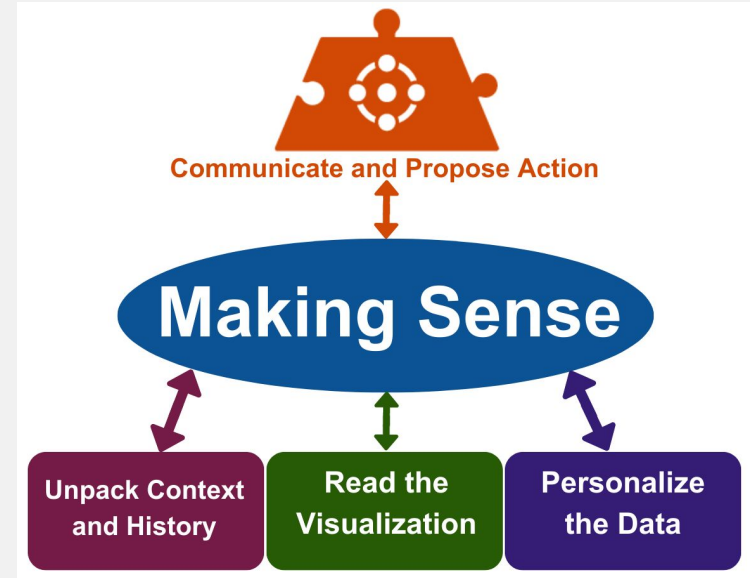
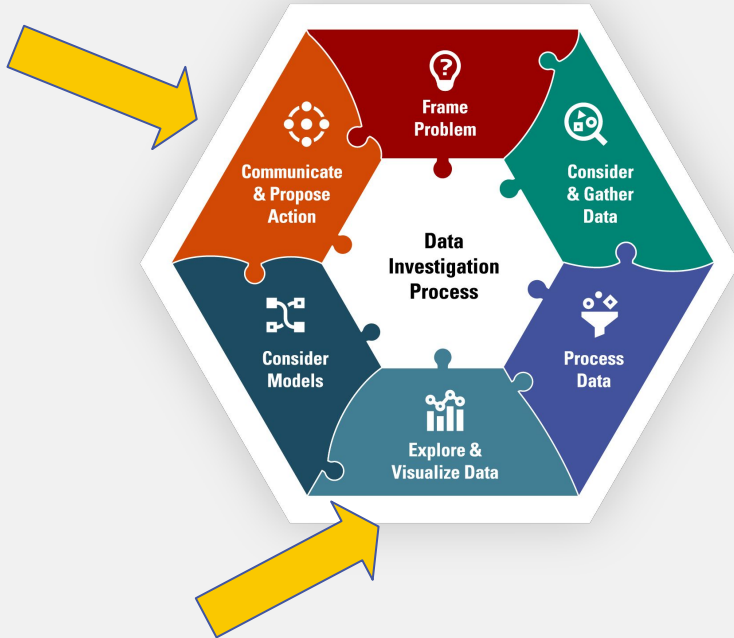
Other examples of interactive components in a data visualization include adding motion to illustrate changes of



Links to Many
External
Resources

Making Sense of Data Visualizations

Framework for Discourse



Personalized Dashboard

 Learning Hub **Dashboard** Data Investigations Dimensions Microcredentials [FAQ](#) [About InSTEP](#)

Dashboard

Announcements

Welcome to InSTEP!

We are excited to welcome teachers and instructional coaches to engage with the new InSTEP professional learning platform!! Get started with a Data Investigation or dive into a Module to learn more about one of the 7 dimensions for supporting students' learning of statistics and data science concepts. New learning materials have been added, with even more to come. Enjoy this experience to expand your professional learning and get ready to ignite that spark and joy of learning with data in your classroom!

—Hollylynnne, Gemma, and the InSTEP team

1 week, 1 day ago

[View Past Announcements →](#)

Recommendations

Based on data from your [personalization surveys](#), the following are top recommendations to further your professional learning:

 **What is Statistics and Data Science?**
~ 1.8 Hours

Progress

 CENSUS AT SCHOOL

Census at School
Essentials: 48% Completed

[Resume →](#)

 DATA AND STATISTICAL PRACTICES

What is Statistics and Data Science?
Essentials: 32% Completed

[Resume →](#)

 US ROLLER COASTERS

More Tools

 **Discussions**

 **Playlists (3)** 

 **Saved Resources (7)** 

 **My Certificates (0)**



Dashboard

Announcements

Three New Modules Added!

Happy Fall Y'all (for those of us in the Northern Hemisphere)

We recently dropped in three new modules in the Tasks (2) and Assessment (1) dimensions.

We envision InSTEP as a place that can support your continual development in learning to teach with data and statistics across the grades 6-12+ curriculum with our seven dimensions framework. That means we will often add in new material so you can return to learn more!

Today we release two modules in Tasks that provide a plethora of lesson plans (Module 2) and a large collection of FREE units/modules/courses that are easy to adopt or adapt for your classrooms (Module 3).

You are also likely at the point in your school year where you are thinking hard about how to assess students' understanding about statistics and data concepts. We have 1 module in Assessment that can help you learn and find resources to support your classroom assessment practices.

Let's continue to get instep with data!

Hollylynn and the InSTEP team

2 weeks, 1 day ago

[View Past Announcements →](#)

Recommendations

Based on data from your [personalization surveys](#), the following are top recommendations to further your professional learning:

US Roller Coasters

~ 2.0 Hours

What is Statistics and Data Science?

~ 1.8 Hours

Big Ideas in Statistics

~ 1.6 Hours

Progress



DATA AND STATISTICAL PRACTICES

Data Investigation Process

Essentials: 22% Completed

Resume →



CENTRAL STATISTICAL IDEAS

Comparing Distributions

Essentials: 6% Completed

Resume →



DATA

Data for Secondary Classrooms

Essentials: 5% Completed

Resume →



US ROLLER COASTERS

US Roller Coasters

Essentials: 9% Completed

Resume →



DATA AND STATISTICAL PRACTICES

What is Statistics and Data Science?

Essentials: 36% Completed

Resume →

More Tools

 Discussions

 Playlists (0)



 Saved Resources (2)



 My Certificates (0)

Internal Tracking and Dashboard

Creating and Sharing Playlists

Dashboard | Playlists

My Playlists

 Videos and Handouts to Use with Students  my stuff  Great things i found 

+ Create New Playlist

Public Playlists

 Data Investigation Resources  EDUCATIONAL VIDEO  Important  Math 4 PLC  AMTE 2025 

Math 4 PLC

 Public Playlist 5 Hours 50 Minutes

TW

For teachers in the NC Math 4 PLC



Data and Statistical Practices / Module 2

Data Investigation Process

~ 1 Hour 30 Minutes



Data / Module 1

Data for Secondary Classrooms

~ 1 Hour 45 Minutes



Central Statistical Ideas / Module 1

Big Ideas in Statistics

~ 1 Hour 35 Minutes



Data / Module 1 / Extended Resource 4

Where to Find Free Datasets & How to Know if They're Good Quality

~ 15 Minutes



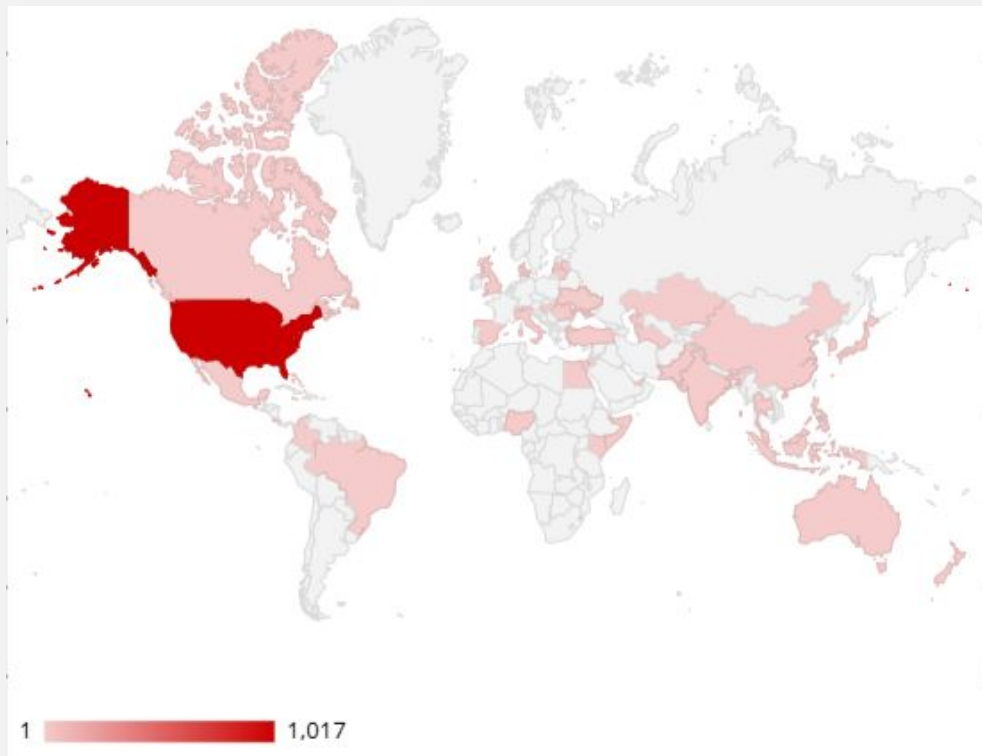
Data / Module 1 / Extended Resource 9

Finding Authentic and Relevant Data to Use

~ 10 Minutes

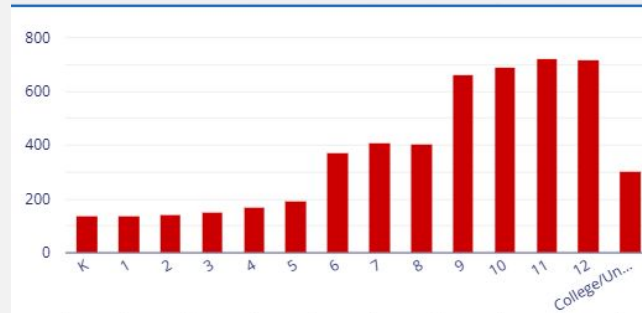
Who is Getting InSTEP with Data?

1371 registered users

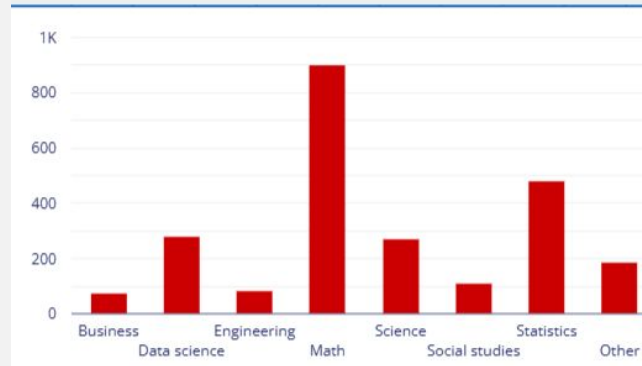


As of May 31, 2025

Grade Levels Taught



Subjects Taught



Recent Paper Published in Education Sciences

Lee, H. S., Thrasher, E., Mojica, G. F., Graham, B. M., Lee, J. T., & Kuhlman, A. (2024). Examining teachers' professional learning in an online asynchronous system: Personalized supports for growth and engagement in learning to teach statistics and data science. *Education Sciences*, 14(11), 1236. <https://doi.org/10.3390/educsci14111236>.

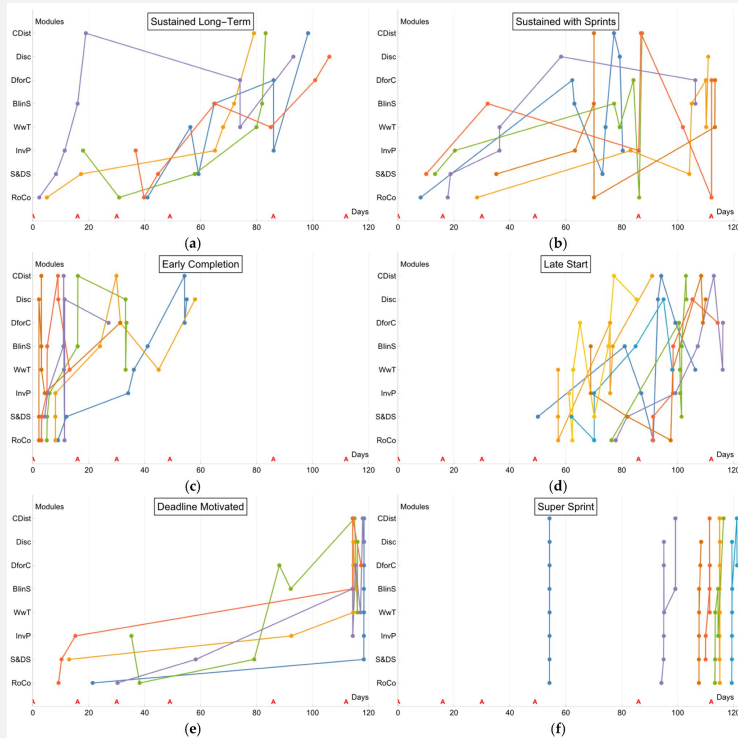
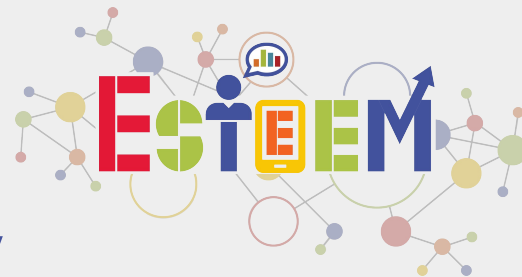


Table 2. Distribution of agreement that participation in InSTEP professional learning helped them make progress towards specific learning goals.

	<i>n</i> = 37					
	Percent of Teachers					
	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Strengthening my understanding of key statistics and data concepts and skills. (BlinS)	0%	5.4%	0%	18.9%	48.6%	27.0%
Engage in real world data investigations myself with large data using technology. (RoCo)	0%	2.7%	8.1%	10.8%	43.2%	35.1%
Strengthening my understanding of how to engage students in practices related to statistics and data science. (InvP)	0%	0%	2.7%	8.1%	51.4%	37.8%
Deepening my ability to help students use data to make evidence-based claims. (InvP)	0%	2.7%	2.7%	10.8%	51.4%	32.4%
Improving my ability to lead productive discussions about important ideas related to data and statistics. (Disc)	0%	2.7%	2.7%	13.5%	56.8%	24.3%
Improving my ability to design, modify, and implement tasks to promote deeper understanding of ideas related to data and statistics. (WwT)	0%	2.7%	2.7%	27.0%	45.9%	21.6%
Improving my ability to make sense of students' thinking through assessing their work, including written, verbal and technological. (Assessment 1, not available at the time of the study)	0%	0%	2.7	32.4%	51.4%	13.5%
Improving my ability to collect and use real-world data to support students' learning in statistics and data science. (DforC)	2.7%	0%	2.7%	24.3%	51.4%	18.9%
Improve my ability to use technology tools to collect, process, visualize, and analyze data. (Technology Tools 1, not available at the time of the study)	0%	5.4%	2.7%	18.9%	54.1%	18.9%

Getting Back to Preservice Teacher Preparation

Enhancing Statistics and Data Science Teacher Education: Transforming & Building Community



Began 2022

NC State University

Hollylynne Lee (PI)

Gemma Mojica (Co-PI)

Emily Thrasher (Senior Researcher)

Rachel Abel (GRA)

Adrian Kuhlman (GRA)

Eastern Michigan University

Stephanie Casey (PI)

University of Southern Indiana

Rick Hudson (PI)

The Concord Consortium

Bill Finzer (Co-PI)

NC STATE UNIVERSITY

E EASTERN MICHIGAN UNIVERSITY

UNIVERSITY OF
SOUTHERN INDIANA

The Concord
Consortium



Materials used in this presentation were funded by the National Science Foundation under grants DUE 2141727 and 1625713 awarded to North Carolina State University, DUE 2141716 awarded to Eastern Michigan University, and DUE 2141724 awarded to University of Southern Indiana. Any opinions, findings, and conclusions or recommendations expressed herein are those of the presenters and do not necessarily reflect the views of the National Science Foundation.

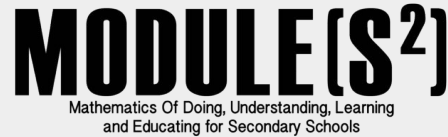
Broad ESTEEM II Goal 2023-2028

Transform

undergraduate teacher preparation

to support developing teachers who
are knowledgeable and confident in
teaching Data Science & Statistics
(DS&S)

ESTEEM Network: Sample of Key Partners



North Carolina
School of Science
and Mathematics



NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS

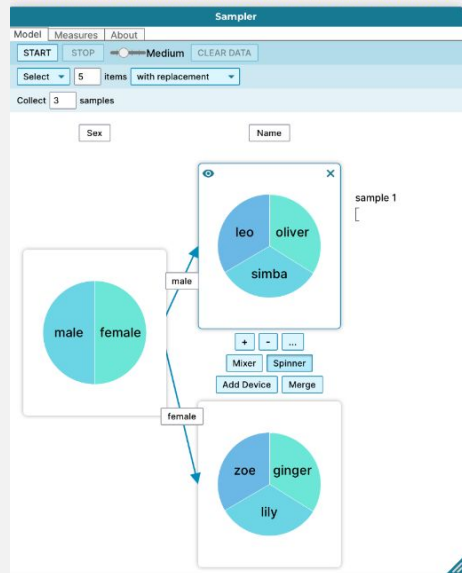


Promoting the Practice and Profession of Statistics



CODAP Sampler Enhancements to Support Multiple Devices

1a: Male Names device selected and its "Add Device" button is pressed ...



4b: ... which adds 2 devices (*see note below), one for each device from the Name column of devices



4c: labels updated in the new Weight column of devices

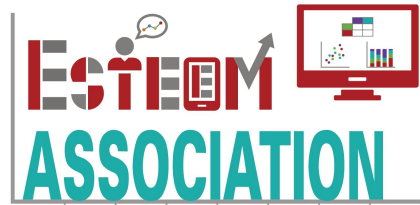


Revised Curriculum Materials

bit.ly/EsteemModules



Available Now!



To be released June 2025



To be released Fall 2025



Professional Growth for Teacher Educators

Webinars

Facilitator's
Guides

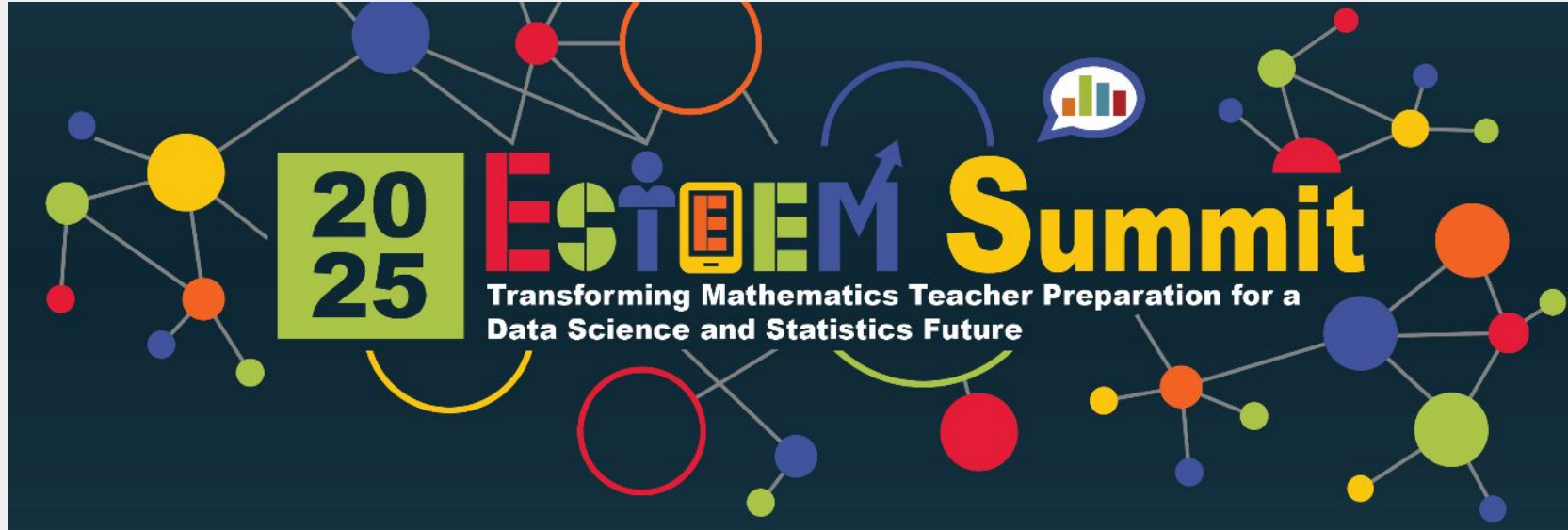
Conferences
& Convening

Online
Resource
Hub

Slack
Community

In-Person
Workshops

Professional Growth for Teacher Educators



80+ Faculty

2 Days

40+ Universities

research.ced.ncsu.edu/esteemhub





research.ced.ncsu.edu/esteemhub/resources

Find one resource you did NOT know about before today!





Data science is spreading across the country...

State-wide data science education implementation (September 2024)

Teaching Data Science in High Schools

[Position statement](#) --March 2024

Data science is a rigorous, engaging, and practical field of study and can be a significant part of a high school student's mathematical experience.

Knowledge of data science is important, and a data science course should be accepted as a high school mathematics course that can be used for credit towards graduation...

All students should have the opportunity to take four years of high school mathematics, and data science content should be available to all students in order to complete their high school mathematics graduation requirement.

Data Science in K-12 Education

Data Science in K-12 Education -- April 2024

Data science bridges disciplines and thus should be introduced and taught across the curriculum in K-12 schools to help develop informed users of data....

All subjects in school should recognize the contribution of data to their discipline and take curricular approaches that integrate data with disciplinary lessons where appropriate.



Conversation and Collaboration

How can InSTEP help support teacher learning in your context?

What are some successes and struggles in teacher education in your country?

How can ESTEEM + InSTEP connect with DATASETUP?



All projects discussed in this presentation were funded by the National Science Foundation or Hewlett Foundation to NC State University. The findings and opinions expressed are those of the presenter and not the funding agencies.

THANK YOU TO THE FUNDERS!

Stay Connected

Hollylynn Lee

Distinguished University Professor of Mathematics and
Statistics Education

Hollylynn@ncsu.edu

ced.ncsu.edu/people/hstohl

[Google Scholar Profile](#)