HUDK 4051: LEARNING ANALYTICS: PROCESS & THEORY

4/5/17 9:41 AM

In the news

Jerks and the Start-Ups They Ruin

By DAN LYONS APRIL 1, 2017

The New York Times

Introduction to Open Education

Learn about open education and how it can significantly reduce costs, increase agency and transparency, and improve learning outcomes.

UNIVERSITY OF TEXAS ARLINGTON

Starts on October 1, 2017

Enroll Now

I would like to receive email from University of Texas at Arlington and learn about other offerings related to Introduction to Open Education.

dplyr part of the tidyverse

http://dplyr.tidyverse.org/

EdSurge

Who's on the List of Most Popular Edtech Organizations and Jobs?

What Federal Education Budget Cuts Mean for Edtech

YAHOO! FINANCE

There's an emotional side of edtech—and it's affecting school innovation

eSCHOOL NEWS Daily Tech News & Innovation

EDWEEK Market Brief

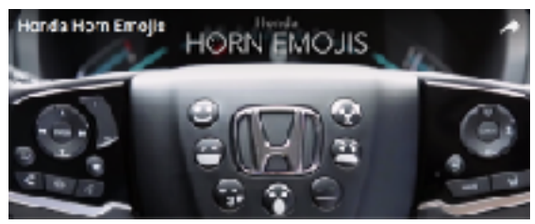
Brookings Institution Researchers Find Many Countries Lack High-Quality Education Data

eScholar myTrack Expands Granular Access to Education Data

THE JOURNAL

Princeton Is Scrambling To Block Its Admissions Records From Being Released

BuzzFeedNEWS



NJ SCHOOL PERFORMANCE Report

- Faculty attendance, which shows the percentage of school days that instructional staff members were present.
- A graph is now included that displays the percentage of high school students who were chronically absent.
- PSAT and ACT performance is now a part of the high school reports.
- Peer school comparisons have been removed.

http://bit.ly/2oltLjc

Events

April 6, 5:30pm, NYC Data Wranglers, Introduction to OpenAI (http://bit.ly/2nYcPwq) (https://openai.com/)

April 6 Giving Voice: Mobile Communication, Disability, and Inequality (https://www.eventbrite.com/e/giving-voice-mobile-communication-disability-and-inequality-a-small-group-session-with-dr-meryl-tickets-33012414019)
(Data & Society)

April 7-8 International Workshop on Obfuscation (http://www.obfuscationworkshop.io/schedule/) (NYU)

April 7-8 Theorizing the Web (http://theorizingtheweb.tumblr.com/2017/program) (Museum of the Moving Image)

April 19, 11am, Webinar: The tidyverse & RStudio Connect (http://bit.ly/2p1s7zY)

April 27-28, Algorithms & Explanations Conference, NYU (http://www.law.nyu.edu/centers/ili/events/algorithms-and-explanations)

Opportunities

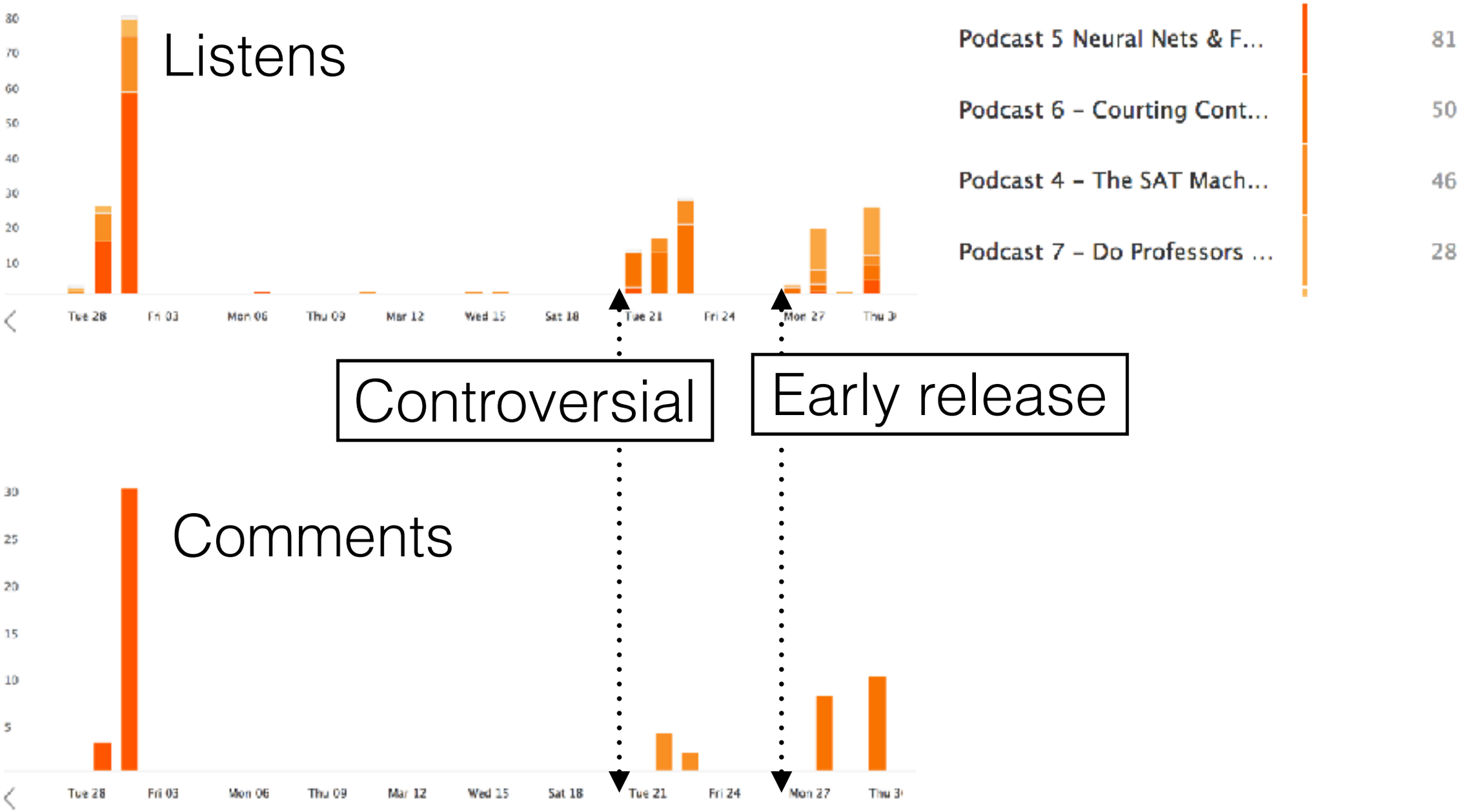
TC Academic Technology Tech Fellow
http://bit.ly/2oI5sJg

Instructure, Salt Lake City, UT
Data Scientist - Product & Strategy (https://www.instructure.com/careers/)

Insight, Seattle, WA
Application Deadline, May 22 (http://insightdatascience.com/?17bNL=DSSEAb)

UTS PhD Info Webinar
TBA

A/B Test Vote


Listens
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Sat 18
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Fri 24
Mon 27
Thu 3
Podcast 5 Neural Nets & F...
81
Podcast 6 – Courting Cont...
50
Podcast 4 – The SAT Mach...
46
Podcast 7 – Do Professors ...
28
Controversial
Early release
Comments
30
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Open laptop, install

https://github.com/rstudio/shiny

Shiny

- Web Application Framework
- Allows you to make html applications from within R
- For us that means interactive data visualizations
- Example A*
- Example B*

Shiny

- Architecture
- Template
- Adding elements
- Reactive inputs
- Reactive results

Shiny Architecture

- Two components:
  - Computer running R
  - Webpage running html (user interface)

*

Shiny Template

```
library(shiny)

ui <- fluidPage()

server <- function(input, output) {}

shinyApp(ui = ui, server = server)
```

Example
Stop sign

Shiny Template

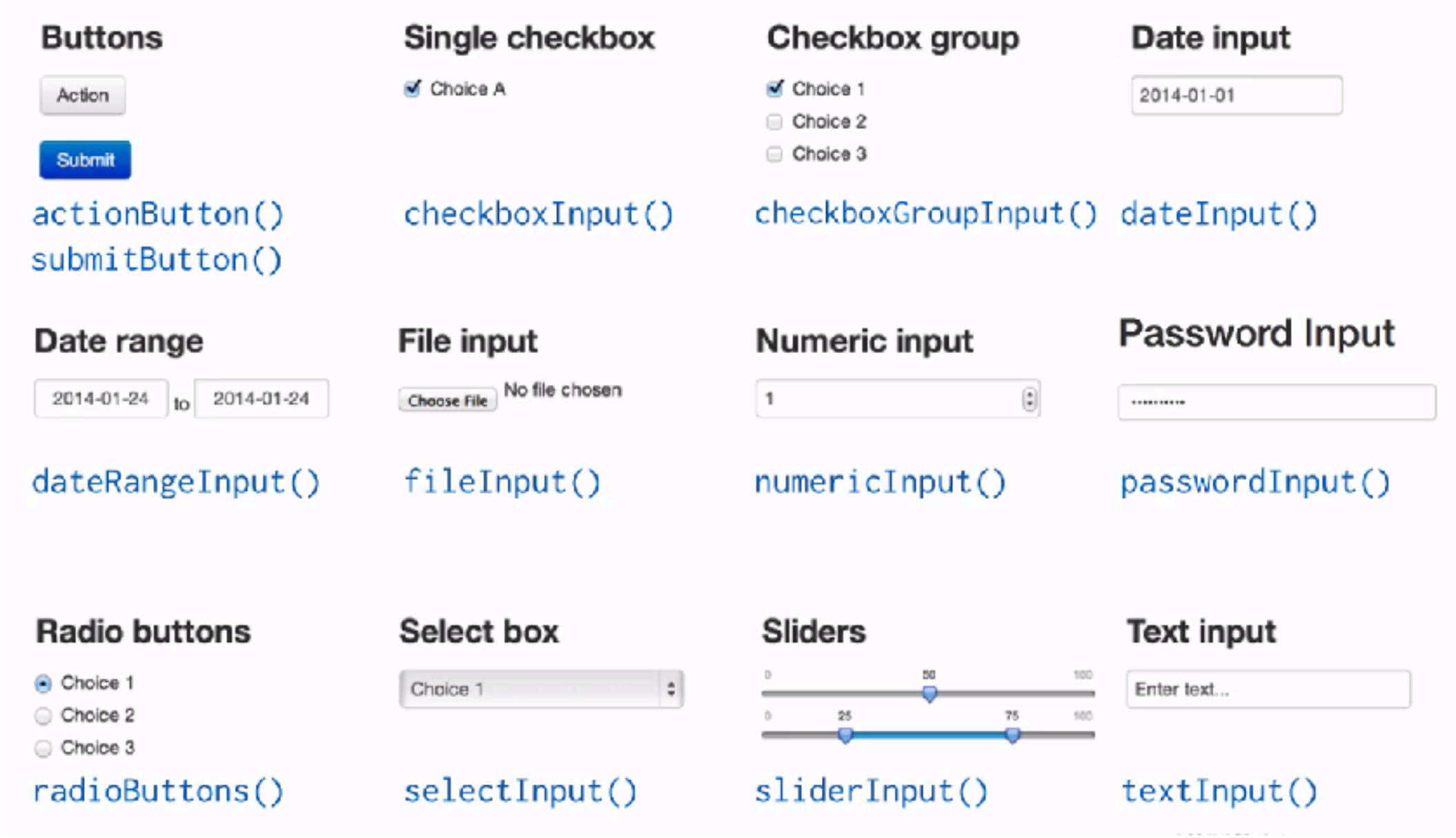
```
library(shiny)

ui <- fluidPage()

server <- function(input, output) {}

shinyApp(ui = ui, server = server)
```

Example

Input Functions

Things that your user will see and manipulate.

Input Functions



Input Function Syntax

```
xxxInput(inputId = “”, label = “”…)
```

Internal use

External use

Example

Output Function

Things that your user will see when they manipulate something in your web app.

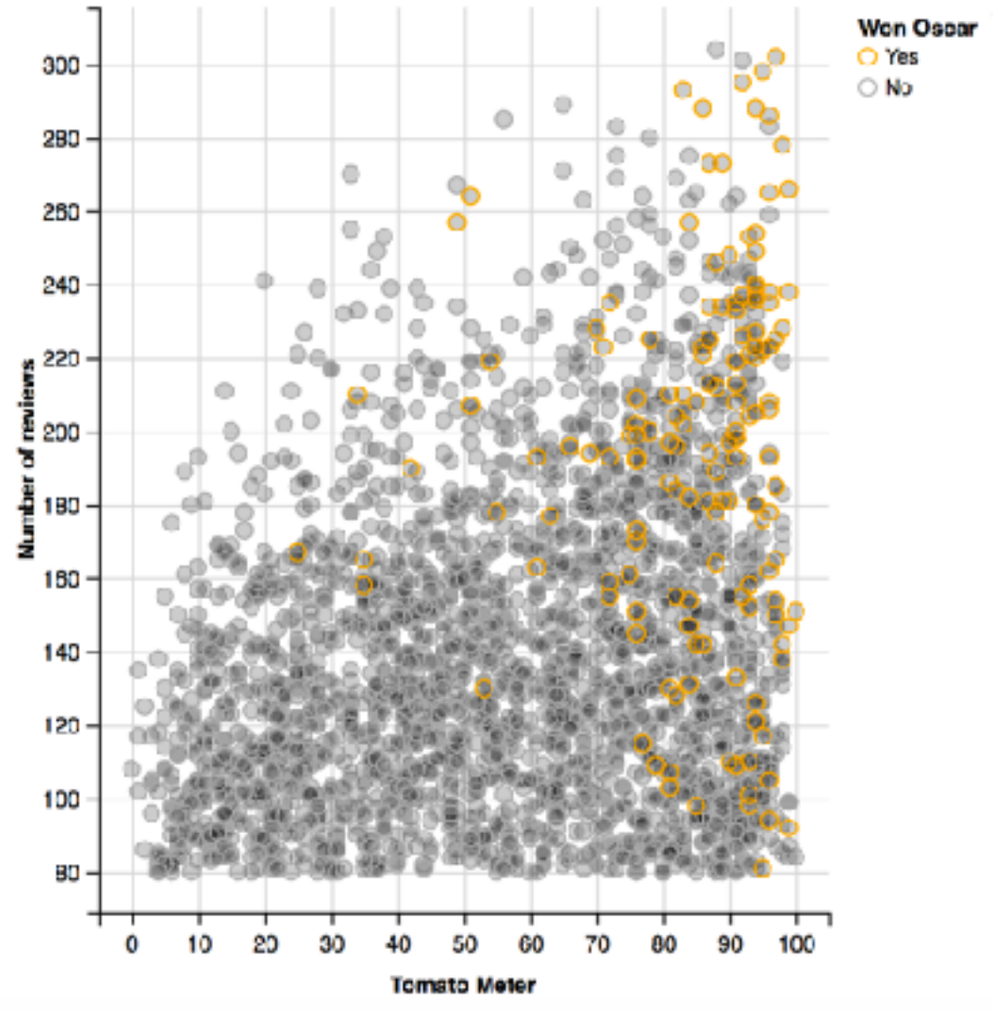
Output Function

Manufacturer: ford

Transmission: All

Show 10 entries

	manufacturer	model	displ	year	cyl	trans
1	ford	expedition 2wd	4.6	1999	8	auto(l4)
2	ford	expedition 2wd	5.4	1999	8	auto(l4)
3	ford	expedition 2wd	5.4	2006	8	auto(l6)
4	ford	explorer 4wd	4	1999	6	auto(l5)
5	ford	explorer 4wd	4	1999	6	manual(m5)
6	ford	explorer 4wd	4	1999	6	auto(l5)
7	ford	explorer 4wd	4	2006	6	auto(l5)
8	ford	explorer 4wd	4.6	2006	8	auto(l6)
9	ford	explorer 4wd	5	1999	8	auto(l4)
10	ford	f150 pickup 4wd	4.2	1999	8	auto(l4)



Output Function

Function	Inserts
`dataTableOutput()`	an interactive table
`htmlOutput()`	raw HTML
`imageOutput()`	image
`plotOutput()`	plot
`tableOutput()`	table
`textOutput()`	text
`uiOutput()`	a Shiny UI element
`verbatimTextOutput()`	text

Output Function Syntax

```
plotOutput(outputId = “name”)
```

Example

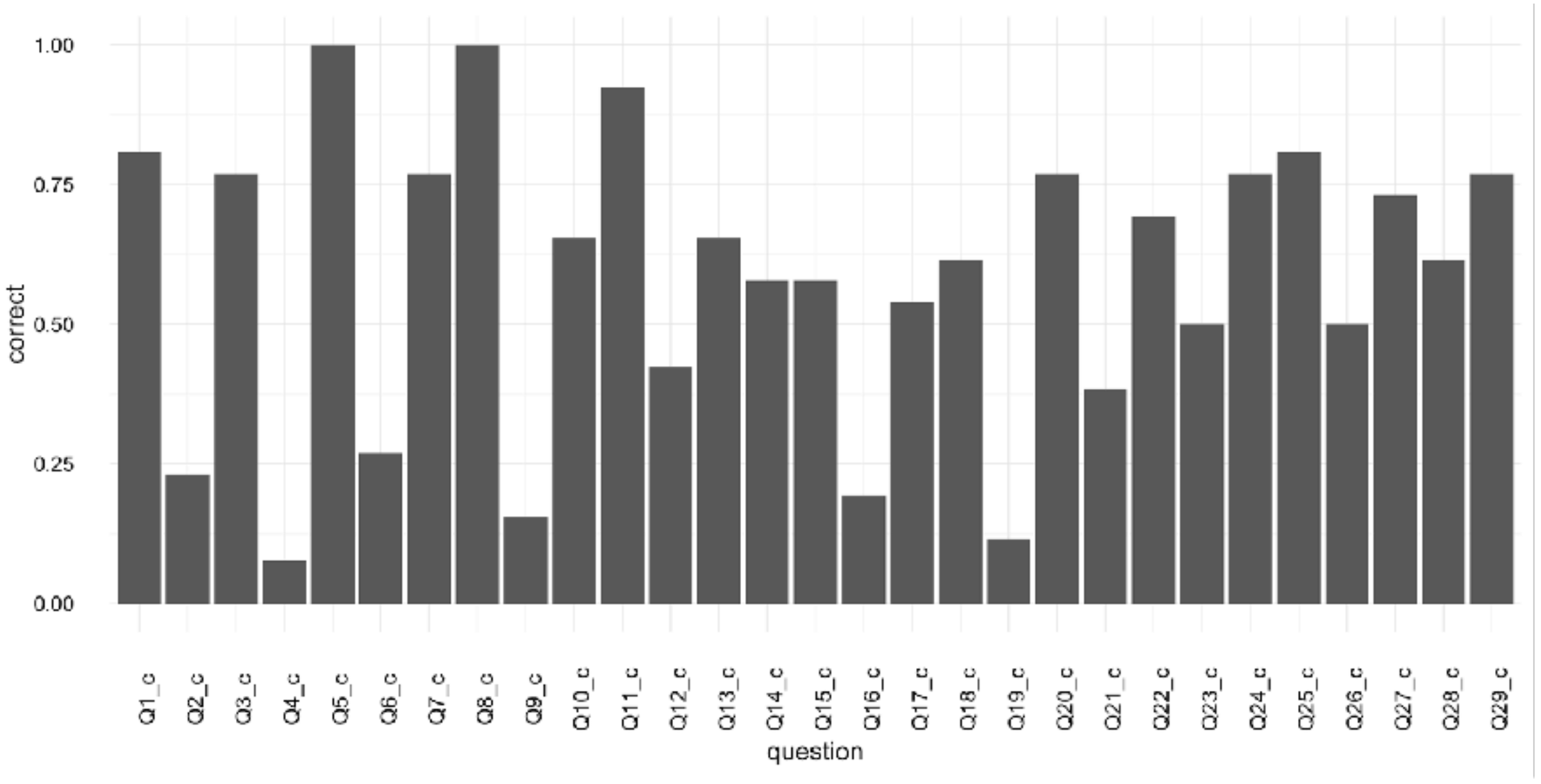
Shiny Template

```
library(shiny)

ui <- fluidPage()

server <- function(input, output) {}

shinyApp(ui = ui, server = server)
```

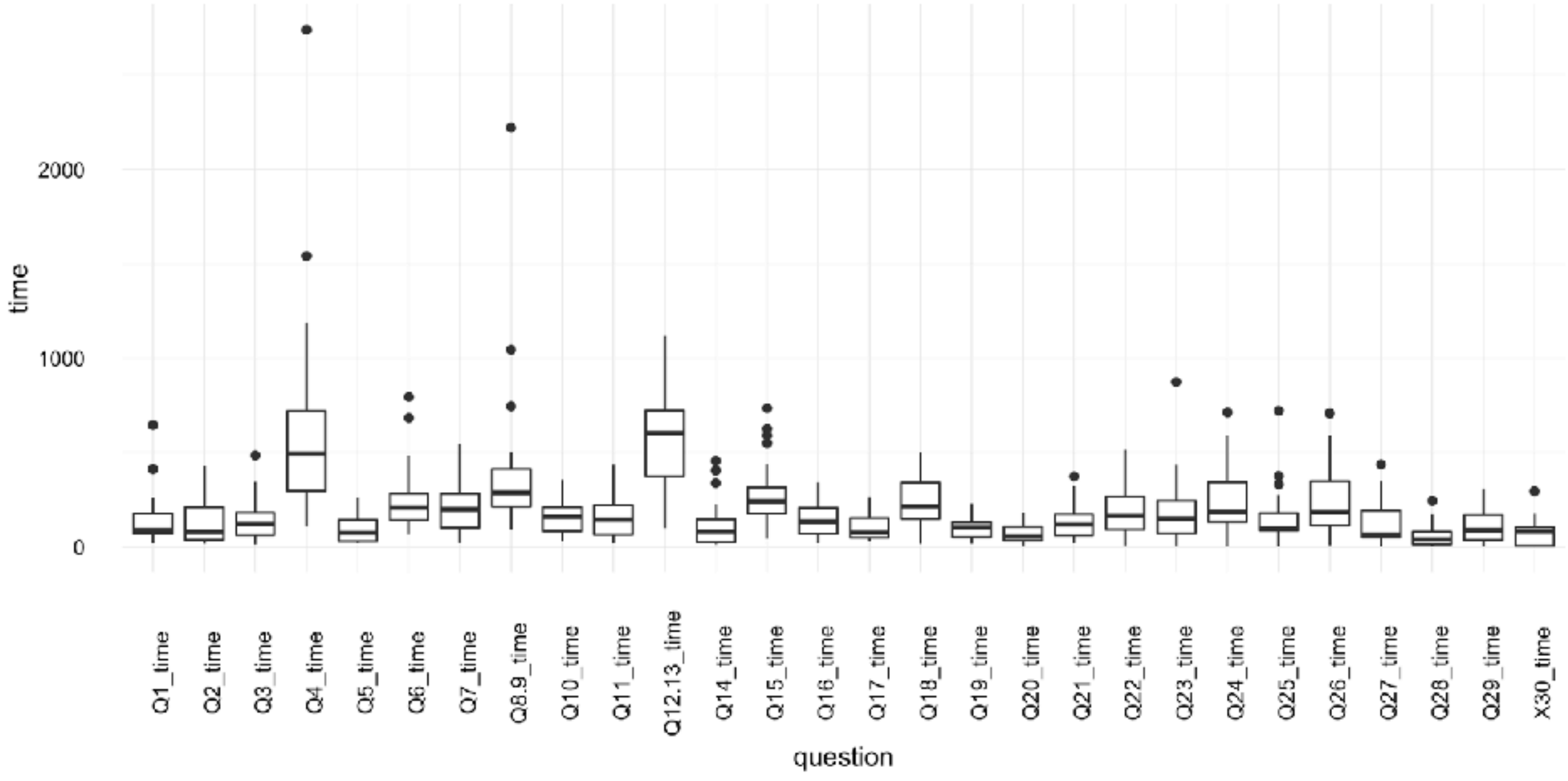
Example

Midterm Results

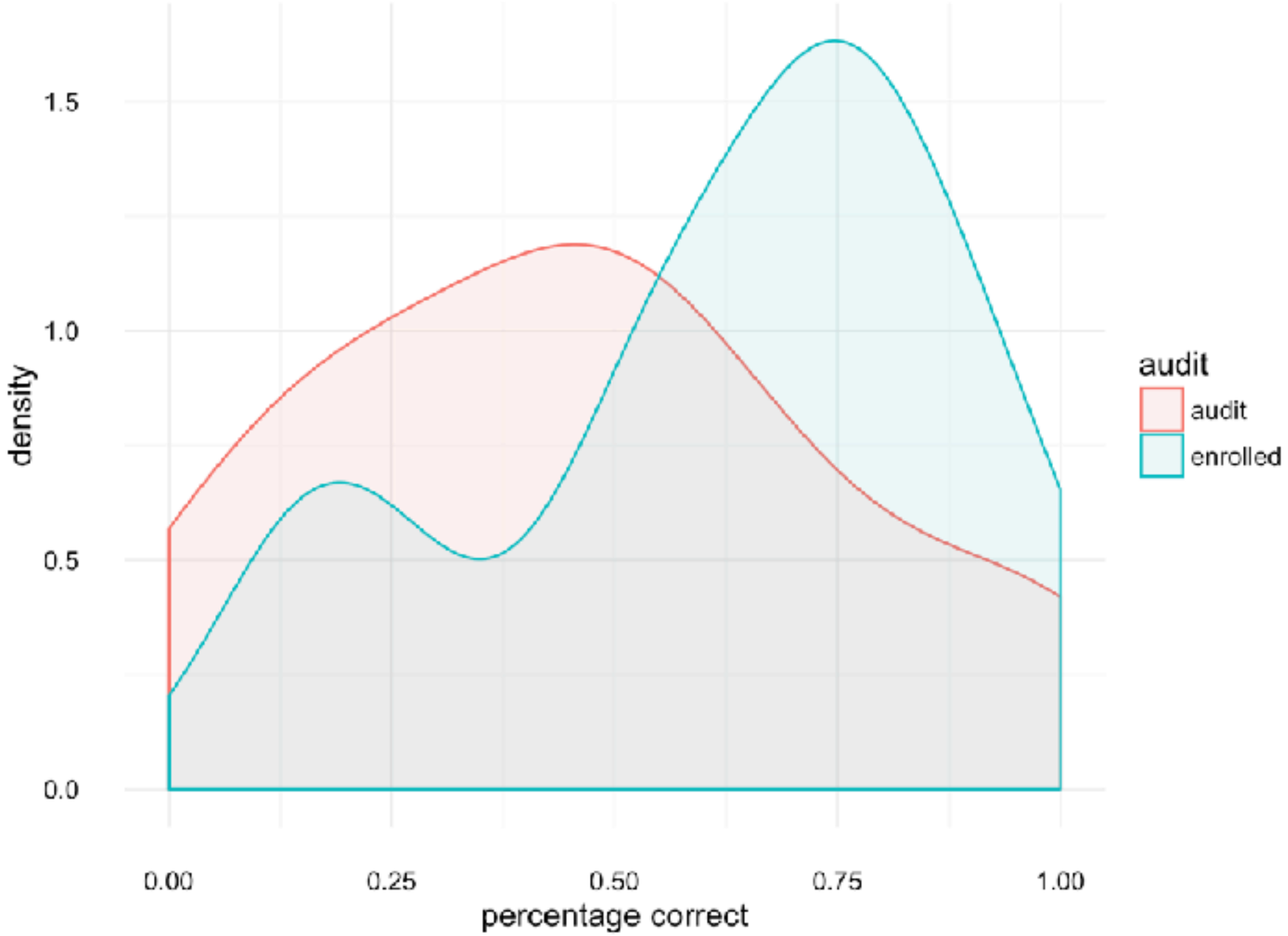
Correct vs. Question



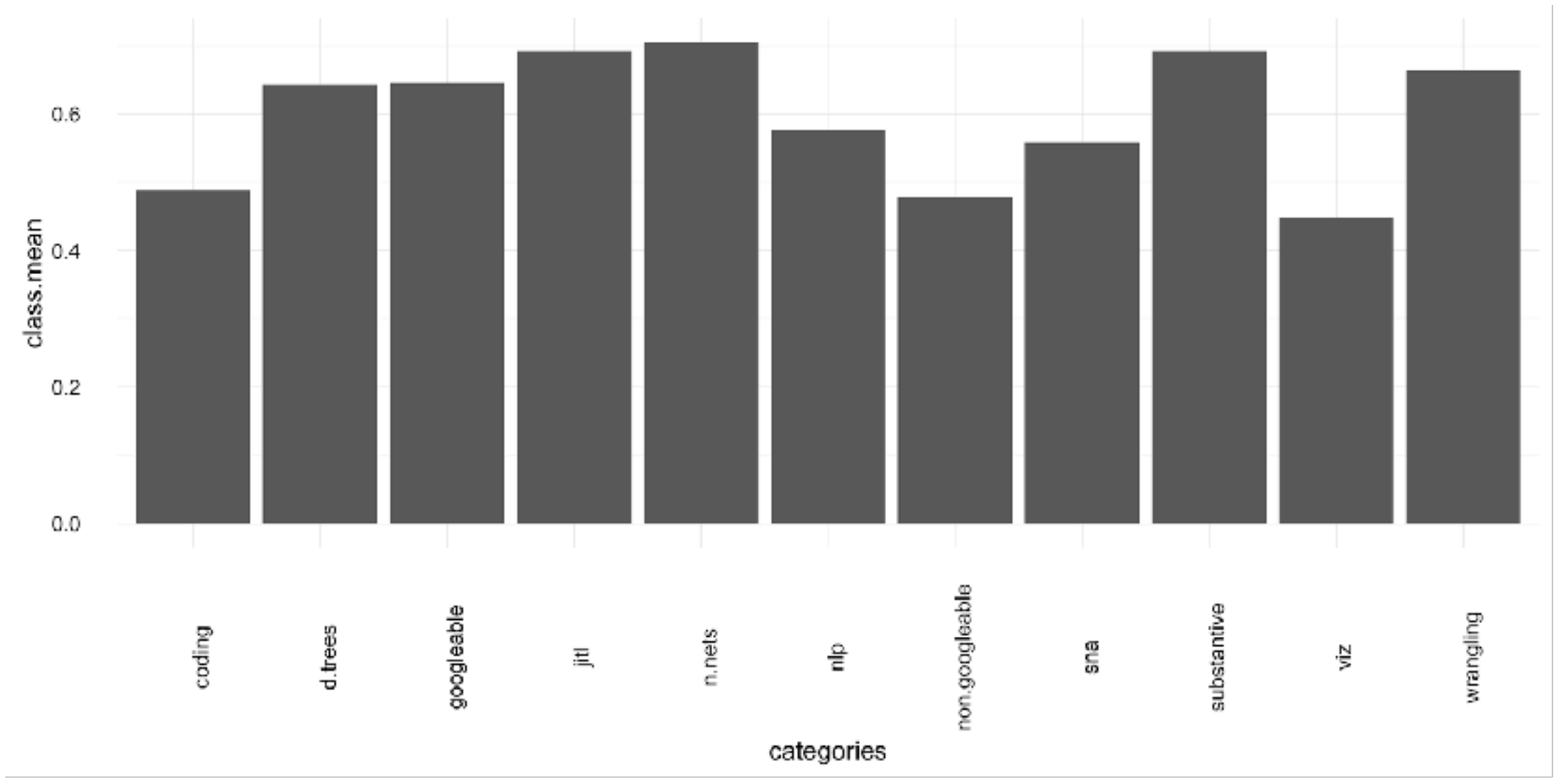
Time vs. Question



Correct by Audit/Enrolled



Correct vs. Question



Task

Is there anything information in these plots we should leverage in class?