

Week 4: *Intro to formr*

🏛️ EMSE 6035: Marketing Analytics for Design Decisions

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📅 September 22, 2021

Reminders

- Proposals due Sunday, 9/26 by midnight
- No class next week - team meetings instead

Week 4: *Intro to formr*

1. Surveys in R

2. Surveys in formr

BREAK

3. Conjoint survey components

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Start in RMarkdown

See [demoSurvey.Rmd](#)

Some Guidelines

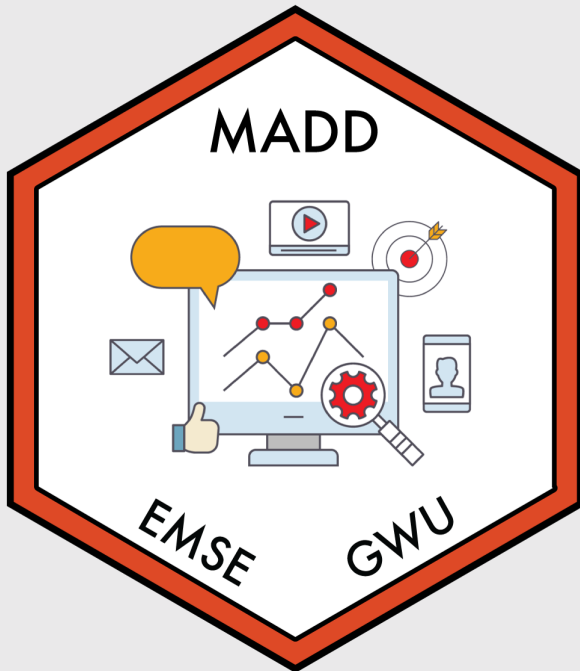
- Use `---` to indicate new pages (this inserts a horizontal line)
- Be sure that any data / images are hosted somewhere on the web
- Consider each new page a **New R Session** (reload libraries, etc.)

Embedding images

I recommend just writing html code, like this

```

```



Centered image

I recommend just writing html code, like this

```
<center>  
  
</center>
```


Check your urls carefully!

This is the link to the Github page with the class logo image:

https://github.com/emse-madd-gwu/2021-Fall/blob/master/images/madd_hex_sticker.png

This is the link to the actual image:

https://raw.githubusercontent.com/emse-madd-gwu/2021-Fall/master/images/madd_hex_sticker.png

Think Pair Share

15:00

- Open and edit the `practiceSurvey.Rmd` file.
- Pick a topic for your survey (a food, an animal, a sports team...whatever).
- Draft a survey about that topic. Include the following:
 - Page 1: A welcome message in large font ("Welcome to a survey about [topic]") and an image about the topic (find an image somewhere).
 - Page 2: Once simple multiple choice question about the topic (state the question and write the choice responses as bullets).
 - Page 3: Choose a data set from [this page](#) (pick a .csv file). Get the url to the .csv file you chose, read it in, and display only the first 6 rows of the data file (do not show any code - only the output of your code).
 - Page 4: Show the last 6 rows of the same data file (again, only the output - hide all code).

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2. **Surveys in formr**

BREAK

3. Conjoint survey components

formr principles

- Use *RMarkdown / html* to create survey elements
- Define surveys in *Google Sheets*
- Import Google Sheets into formr *surveys*
- Link surveys together in formr *runs*

Demo survey

formr row types (more here)

Type	Description
<code>note</code>	Display content in <code>label</code> column
<code>submit</code>	Next page button
<code>mc</code>	Multiple choice question (single choice)
<code>mc_multiple</code>	Multiple choice question (multiple choices)
<code>mc_button</code>	Multiple choice question (large buttons)
<code>select_one</code>	Drop down menu (choose one)
<code>text</code>	Open text, single row
<code>textarea</code>	Open text, block

Two ways to define choice options

Add "choice" columns

	H	I	J	K
	choice1	choice2	choice3	value
	Yes!	Kind of	No :(

Use `choices` tab
(when you have a lot of choices)

Example: "Year of birth" in demo survey

Control the way things look in `class` column
(options here)

Importing survey into formr

formr.org --> Admin --> Surveys --> Create new survey

(Make sure your Google Sheet is visible!)

The screenshot shows a Google Sheet interface with a 'Share with people and groups' dialog box and a 'Get link' dialog box. The 'Get link' dialog box displays the following information:

- Get link** (with a gear icon)
- URL: <https://docs.google.com/spreadsheets/d/13jSdIIIDFRVsiHbiObgyZIPTGovlc...> (with a 'Copy link' button)
- Permissions: **Anyone with the link** (with a dropdown arrow) and 'Anyone on the internet with this link can view'
- Viewer: **Viewer** (with a dropdown arrow)
- Buttons: 'Send feedback to Google' and 'Done'

The background shows a Google Sheet with columns labeled C through K. The visible content includes a table with headers: 'type', 'optional', 'name', 'showif', 'label', 'choice1', 'choice2', 'choice3', 'value'. The table contains rows for 'submit', 'note', and 'note'. The 'note' rows contain text like 'Note that if you want to load some data on insert' and 'library(tidyverse)'. The bottom row shows 'submit', 'page4', and '-->'. There is also some R code visible at the bottom: 'x = "Year", y = "Temperature Anomaly (C)", caption = "Data Source: NASA"'. The 'submit' row contains 'page3' and '-->'.

Make a run

formr.org --> Admin --> Runs --> Create new run

Insert survey with 


Insert stop with 

Change order by adjusting numbers & clicking "Reorder"

Edit Run

Reorder Lock Export Import

demoSurvey


 demoSurvey
0 complete results, 0 begun (in ~ 0m)

View items Upload items

Saved Test

10

Description (click to edit)

 Feedback text:
Thanks for taking our survey!

Saved Test

20

Make it "live" with the volume buttons


Edit Run

I am panicking :-{

Reorder Lock Export Import

Publicness: [Mute] [Volume 1] [Volume 2] [Volume 3]


demoSurvey

 demoSurvey

0 complete [results](#), 0 begun (in ~ 0m)

View items Upload items

Saved Test


10

Fine tune look & feel in "Settings"

Think Pair Share

- Using your team's Google account, create a new survey spreadsheet (you may wish to copy-paste from [this one](#))
- Name your sheet "[netID]practice", replacing "[netID]" with your GW Net ID (e.g. "jphpractice")
- Insert the content in your `practiceSurvey.Rmd` file into your Google Sheet.
- Using your team's formr account, import your Google Sheet as a survey in formr (use the same "[netID]practice" name for your survey).
- Create a run that includes your survey and a stop.
- Test it!

Break

05:00

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3. **Conjoint survey components**

3 Parts

- **Part 1:** Intro
- **Part 2:** Conjoint questions
- **Part 3:** Other / demographic questions

3 Parts

- **Part 1:** Intro --> screen for target population
- **Part 2:** Conjoint questions --> screen for random answers
- **Part 3:** Other / demographic questions

Think of your survey as a *conversation*

- Include "transition" pages (e.g. Great job! Now we'll ask you about...)

Part 1: Intro

Start with a welcome page

Welcome!

Thank you for participating in this survey. With your responses, we are looking forward to understanding your perspective as a consumer. This research is part of an effort from the George Washington University.



Consent form

This survey is being conducted by students at the George Washington University. We will not be collecting any identifying data such as your name or address. The whole survey will take approximately 10 to 15 minutes to complete. Your participation is voluntary and you may stop the survey at any time.

If you would like to participate, please answer the following questions:

I am age 18 or older

Yes

No

I have read and understand the above information

Yes

No

Eligibility questions: who is your target population?

Filter out respondents here

Are you in the market for a car?

No

Yes, and I plan to buy one in the next few months

Yes, and I plan to buy one in within the next year

>>

Part 2: Conjoint questions

Education information

In this survey, we are going to ask you about your preferences for the following vehicle attributes:

- Price
- Fuel Economy
- Acceleration Time
- Powertrain

But before we ask you any question, let's learn a little bit more about each of these attributes.

Education information

Price is the final price you will pay for the vehicle you are buying (including all taxes and fees)



>>

POWERTRAIN

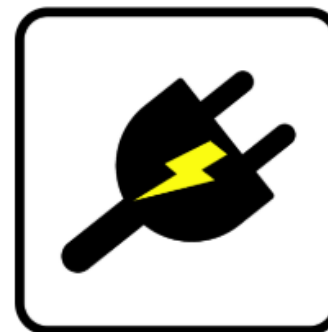
The type of engine in the vehicle

Gasoline



Gasoline engine vehicle.

Electric



Electric motor vehicle.
Must be plugged into an electrical outlet to be refueled. (6 - 10 hours to fully charge).

Can be helpful to provide relative comparisons

Weight:

- 1/2 lbs (similar to 1 cup water)
- 8 lbs (similar to 1 gallon of milk)

Conjoint intro




In the next few pages, we will show you options of different vehicles and we'll ask you to select which you would choose.

Let's try a practice question - on the next page, click the round button under the option you most prefer.



Practice conjoint (also attention check)

May also filter out respondents here

	Choice 1	Choice 2	Choice 3
Price	20	15	25
Fuel Economy	20	30	15
Acceleration Time	7	6	8
Powertrain			
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Transition to actual conjoint questions

Nice work!
Now let's begin the choice tasks.
You will be asked four choice questions in total




>>

Conjoint questions

May also filter out respondents at the end

(e.g. chose all same answers)

(1 of 4) Choose your preferred option from the choices below:

	Choice 1	Choice 2	Choice 3	None
Price	25	25	15	None of these options
Fuel Economy	30	25	25	
Acceleration Time	8	7	7	
Powertrain				
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

>>

Part 3: Other / demographic questions

Transition

Almost done!

We'd like to ask just a few more questions about you.

A blue rectangular button with rounded corners, containing the white text '>>' centered within it.

>>

Critical respondent information

How many vehicles does your household currently own?



Demographic / other questions

What is your age?

What is your total annual household income?

What is your gender?

Which of the following best describes your highest achieved education level?

Finale

We thank you for your time spent taking this survey.
Your response has been recorded.

[Blog post on conjoint in formr](#)

[Project survey plan](#)

Sign up for meeting slot next week
(link in #project channel)