Does the Respondent Task or Number of Attributes Affect the Results of a MaxDiff?

Research on Research

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1785

About the MMR Program at the Terry College of Business

Our STEM-designated MMR program at the Terry College of Business was the first Master of Marketing Research program in the U.S. and is internationally regarded as the standard of comparison for such programs. Created to support data-driven decisions and analyze growing amounts of data available from retail scanners. According to the 2017 GRIT report, the UGA MMR program is recalled three times as often as all the other programs combined.

Founded in 1979, first MMR class graduate in 1981. An alumni network of 730+ thought leaders in the industry.

Our MMR students are trained in both methodological and consulting skills. Access to state- of-the art software and hardware. Highly sought after by companies recruiting insights and research talent. 100% placement rate.

Whether you are looking to recruit top talent, or further your research education, contact us at:
Marcus Cunha, MMR Program Director: cunhamv@uga.edu
MMR program: terrymmr@uga.edu

Meet the Researchers

Marcus Cunha

Professor of Marketing, Director of the Master of Marketing Research Program

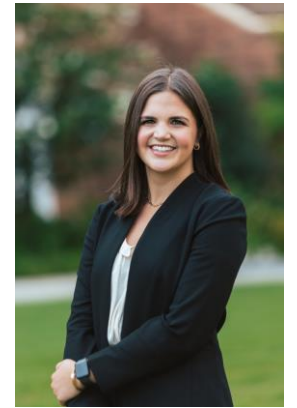**Jacque Barbush**

MMR Candidate

Jyoti Makhijani

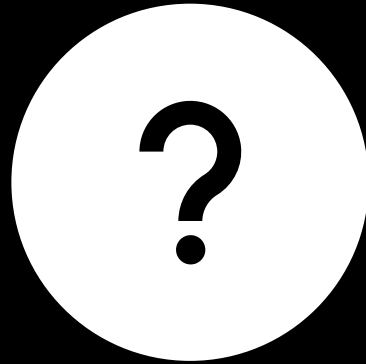*MMR Candidate*

Kathleen Reynolds

MMR Candidate

Maggie Jordan

MMR Candidate

Research Question

Does the Respondent Task or Number of Attributes Affect the Results of a MaxDiff?

Experimental Design

2x2x2 Mixed Design

4 experimental conditions

2 ranking types
(reordering, best/worst
ordering)

2 numbers of attributes (3
or 5)

2 different industries

Sample & Randomization

800 participants with 200 in
each experimental
condition

Each participant was
randomly assigned to each
experimental condition

The order of the MaxDiff
was randomized

Visual Representation of Experimental Conditions

Each of the 4 Survey Conditions was randomly assigned to one group of 200 respondents.*
Respondents were balanced by Gender, Age range, and Region.

Condition 1	**Condition 2**	**Condition 3**	**Condition 4**
Reorder, 3	**Reorder, 5**	**Best/Worst, 3**	**Best/Worst, 5**
n=200	*n=200*	*n=200*	*n=200*

• Flight • Reorder • 3 Attributes	• Flight • Reorder • 5 Attributes	• Flight • Best/Worst • 3 Attributes	• Flight • Best/Worst • 5 Attributes
• Restaurant • Reorder • 3 Attributes	• Restaurant • Reorder • 5 Attributes	• Restaurant • Best/Worst • 3 Attributes	• Restaurant • Best/Worst • 5 Attributes

* Upon qualification, respondents are randomly assigned to one of these four groups.
** Within group randomization, i.e. respondents randomly saw either the Flight or Restaurant industry maxdiff first

Methodology: Survey on AYTM

PQ1 On average, how frequently do you go out to eat for a sit-down dinner at a restaurant?

PQ2 In a typical year, how many times do you travel domestically by plane?

Q. When dining out, what features are most/least important in influencing the overall experience?

(3/5 Attributes, Reorder/Best-Worst)

Q. When booking a flight, what factors are most/least impactful when deciding which flight to choose?

(3/5 Attributes, Reorder/Best-Worst)

Experimental Conditions: Survey Representation

Reorder with 3 attributes for both
Condition 1 flights & restaurants

Q3.1. **When dining out**, what features are most/least important in influencing the overall experience?

Drag up or down to reorder:

Food quality (flavor & temperature)

Timeliness (wait time to be seated/for food)

Size of restaurant

Reorder with 5 attributes for both
Condition 2 flights & restaurants

Q8.1. **When booking a flight**,
what factors are most/least impactful when deciding which flight to choose?

Drag up or down to reorder:

Price

Plane crowdedness

Time of day of flight

Airline (brand)

Duration of flight

these are representative examples

Experimental Conditions: Survey Representation

Best/worst with 3 attributes for both
Condition 3 flights & restaurants

&

Best/worst with 5 attributes for both
Condition 4 flights & restaurants

Q12.2. **When booking a flight**, what factors are most/least impactful when deciding which flight to choose?	Q12.2. **When booking a flight**, what factors are most/least impactful when deciding which flight to choose?	Q12.2. **When booking a flight**, what factors are most/least impactful when deciding which flight to choose?
Please click/tap the item of your **first choice.** Click again to clear the choice.	Now please click/tap the item of your **last choice.** Click again to clear the choice.	Thanks! Continue to the next question or click any unselected item to start over.
Number of layovers/connections 👍	Number of layovers/connections 👍	Number of layovers/connections 👍
Duration of flight 👍	Duration of flight 👎	Duration of flight
Airline (brand) 👍	Airline (brand) 👎	Airline (brand) 👎

these are representative examples

Learnings from the Experiment

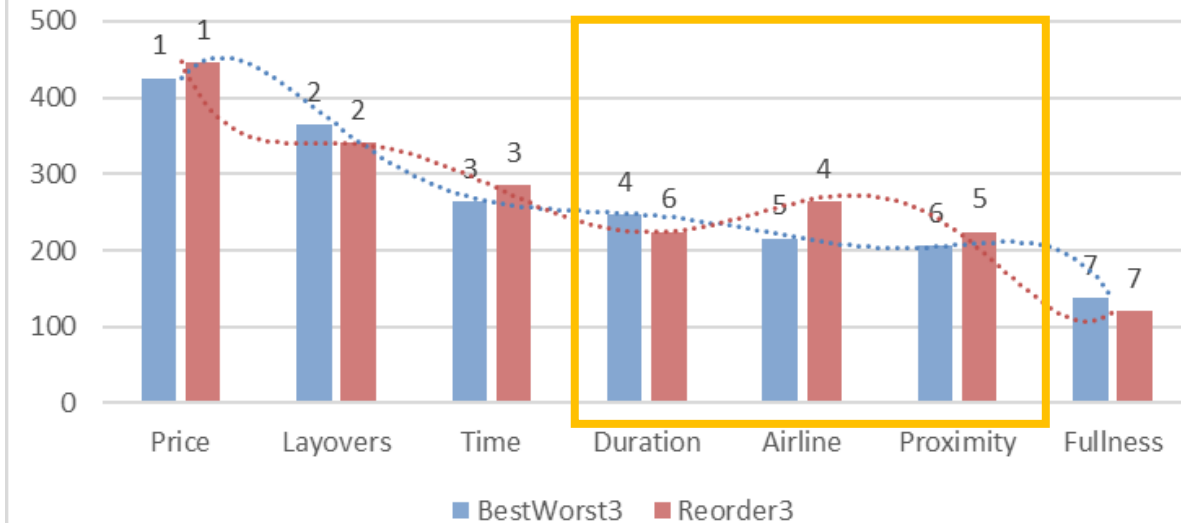# An interaction effect exists between the selection style and the attribute

*Data Labels: represent relative order (by Index value) in which attributes were selected by respondents

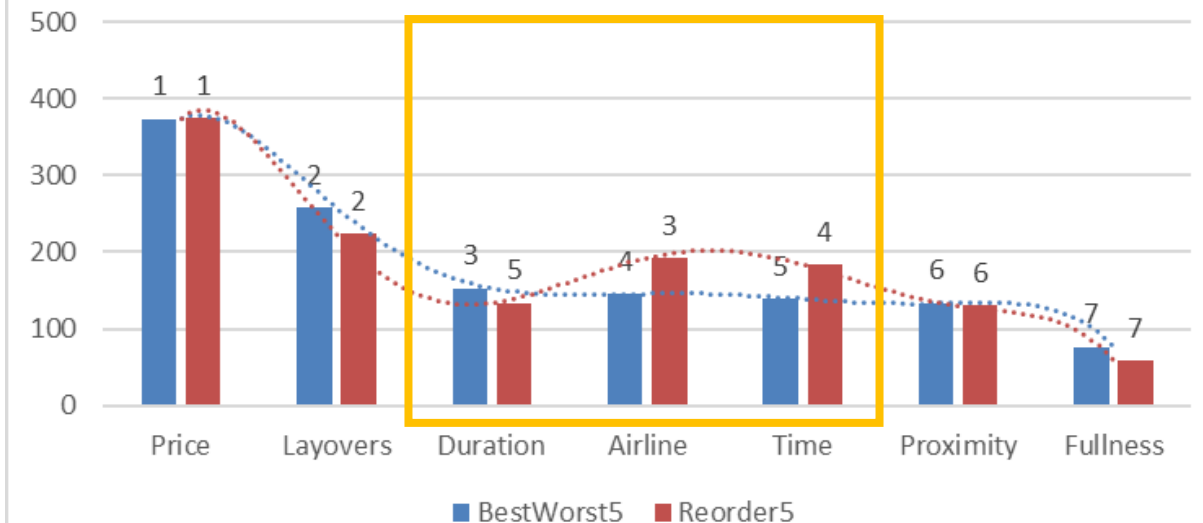# An interaction effect exists between the selection style and the attribute

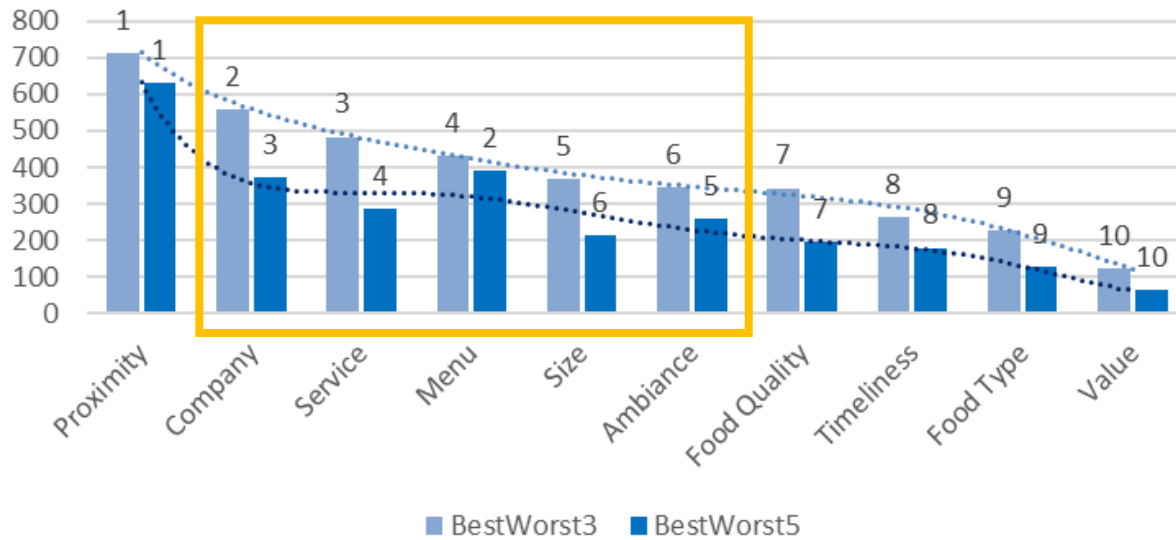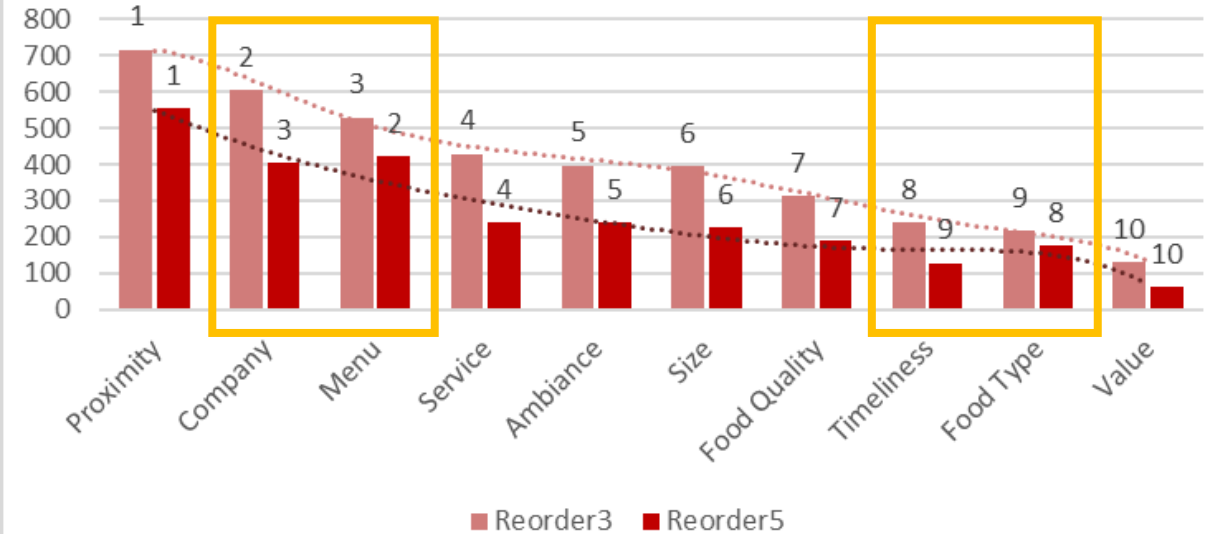*Data Labels: represent relative order (by Index value) in which attributes were selected by respondents

An interaction effect also exists between the number of choices and the attribute level
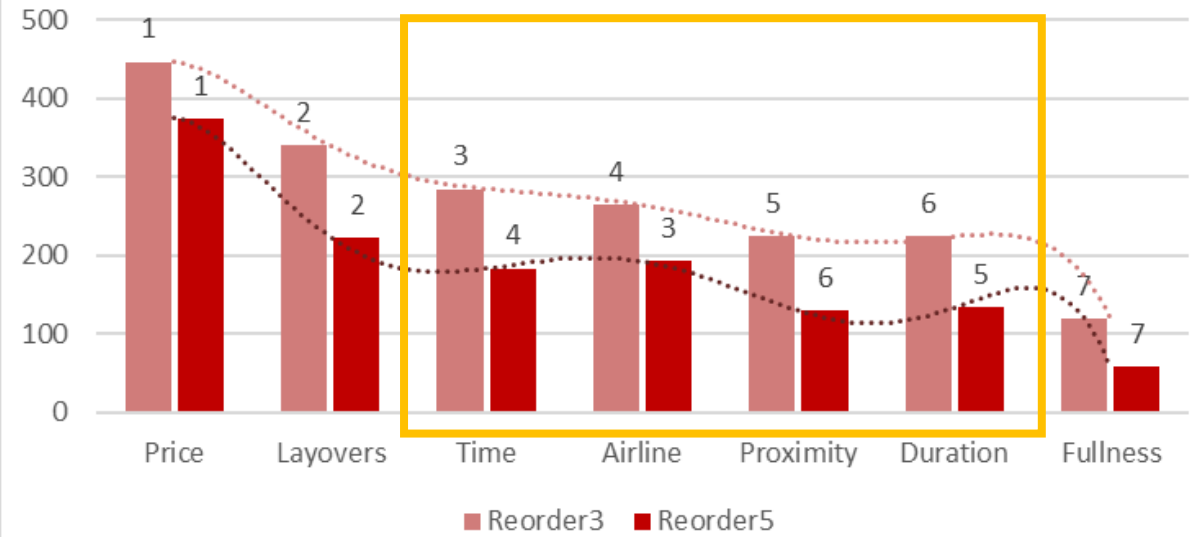

Data Labels: represent relative order (by Index value) in which attributes were selected by respondents

# An interaction effect also exists between the number of choices and the attribute level

Data Labels: represent relative order (by Index value) in which attributes were selected by respondents

Attribute ranks at the end-points tend to be the same with some variation observed in the in-between attributes.

- The **first and last** tend to **remain stable.** However, we see some reversals in the **in-between attributes**

- People's preferences **might not be as well established** for the in-between attributes. Because of this, they may be affected by the way questions are presented (i.e. the number the of attributes and the respondent task).

Key Takeaways
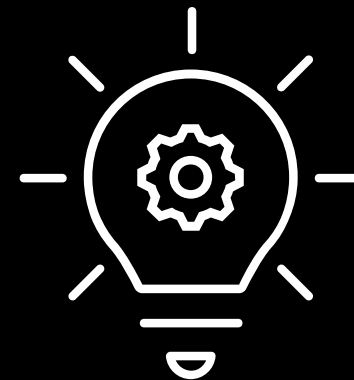
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Implications
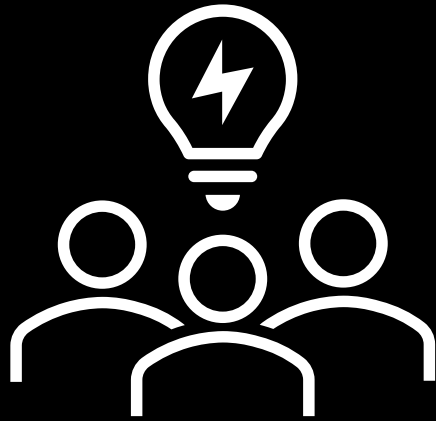
Be aware that results can vary.

- Researchers and decision makers need to be aware of the differences that can be seen for the middle/in-between attributes depending on respondent task & number options provided.

Not one "best" experimental condition.

- Results across all four experimental conditions are approximately the same.
- Cannot state declaratively which way of asking max-diff questions is "best" as there is no comparative standard.

Important to be consistent.

- Whichever method is chosen, it is important to be consistent in both number of options provided and respondent task (best/worst or ordering scale). This will ensure comparable results.
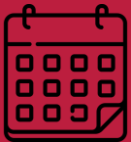
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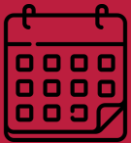
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Limitations

Sample biases

Fielded in January 2023

Further research

Longitudinal data
- To show implications of consistency in MaxDiff

Niche or polarizing topics for MaxDiff
- To see if preferences are set for all attribute levels

Thank You!

Questions?