



**Choosing the Right
Research Tool ...**

Maximum Difference

Maximum Difference – Uses

- ❖ The Maximum Difference (“Max Diff”) method can be used to answer the following questions:
 - **Positioning** – Which components of positionings are most preferred by consumers?
 - **Product Optimization** – What product attributes are most important to consumers when evaluating a product?
 - **Segmentation** – Can consumers be grouped with respect to the importance of product attributes?
 - **Concept Development** – Which new product concepts are the most appealing to consumers?

Limitations of Traditional Methods

- ❖ Item rankings are difficult for respondents when many items must be ranked. Further, they provide only low-level ordinal data which limits information.
- ❖ Traditional rating scales typically result in items being rated at about the same level. Further, respondent biases, such as leniency, severity, and central tendency, are not controlled.
- ❖ Paired comparisons are also a useful method for scaling preference of a set of items. However, with just a few items to be evaluated, the number of pairs to be assessed becomes VERY large, reducing data quality.

Maximum Difference – Defined

- ❖ Max Diff combines the benefits of all methods, while reducing limitations.
 - By asking respondents to select the most and least in each set of items, discrimination among items is created AND respondents are implicitly comparing each item to every other item.
 - Respondents do not become fatigued, limiting data quality.
 - Provides ratio level data.

Maximum Difference – The Exercise

- ❖ Respondents are provided with a set of items and asked to indicate which of them is most preferred or descriptive of a concept and which is least preferred or descriptive.
- ❖ Usually respondents are asked to select from sets of four to six items. In addition, they normally select from as few as six or as many as 20 groups of items.

A Verbal Example – The Perfect Dog

The Exercise


(1 of 9): Please read the following phrases that might describe the perfect dog.
Please indicate:

- The **ONE** aspect that is **MOST** appealing, and
- The **ONE** aspect that is **LEAST** appealing

MOST APPEALING	DESCRIPTIONS OF A DOG	LEAST APPEALING
<input type="radio"/>	Is a lapdog.	<input type="radio"/>
<input type="radio"/>	Is good with children.	<input type="radio"/>
<input type="radio"/>	Doesn't shed.	<input type="radio"/>
<input type="radio"/>	Protects my home.	<input type="radio"/>

Continue >>

A Verbal Example – The Perfect Dog The Results

	Description of a Dog	Index	Tier
BEST  WORST	Protects my home.	198	1
	Has a good disposition.	181	
	Protects my family.	144	2
	Is good with children.	125	
	Is a lapdog.	94	3
	Likes to play outside.	91	
	Doesn't bark excessively.	87	
	Doesn't shed.	81	
	Is a purebred.	68	4
	Is energetic.	62	
	Is a show dog.	55	5
	Is a hunting dog.	48	

Maximum Difference Analysis

The top idea in tier 1 performs significantly better than the top idea in tier 2, which performs significantly better than the top idea in tier 3, etc.

A Visual Example – Preferred Dog Breed

The Scenario



A Visual Example – Preferred Dog Breed

The Max Diff Question A

(Task 1 of 8): Please click on the breed of dog you like **BEST**.

Pug



Pomeranian



Dachshund



Newfoundland

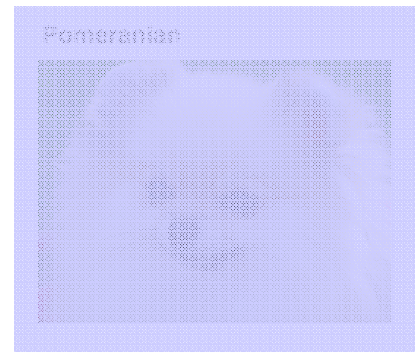


A Visual Example – Preferred Dog Breed

The Max Diff Question B

(Task 1 of 8): Please click on the breed of dog you like **LEAST**.

Pug



Dachshund



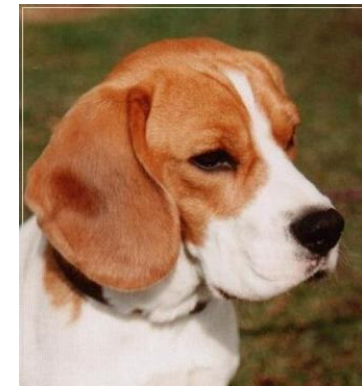
Newfoundland



A Visual Example – Preferred Dog Breed

The Results

- ❖ The Max Diff Exercise clearly identified which breeds of dog are preferred.



A Visual Example – Preferred Dog Breed

The Results

Breed of Dog	Index	Tier
Pug	223	1
Golden Retriever	192	2
Pomeranian	190	
Beagle	187	
Dachshund	181	3
Labrador	172	
Bichon Frise	170	
American Eskimo	136	4
Terrier	134	
Collie	126	
German Shepard	124	
Dalmatian	117	5
Mastiff	108	
Newfoundland	108	
Rottweiler	106	

BEST

↑

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WORST

Maximum Difference Analysis

The top idea in tier 1 performs significantly better than the top idea in tier 2, which performs significantly better than the top idea in tier 3, etc.

Hypothetical Results